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ORIGINAL ARTICLES.

SOME NEW MEDICO-LEGAL QUESTIONS RELATING TO INEBRIETY.

Read in the Section of State Medicine at the Forty-first Annual Meeting of the American Medical Association, held at Nashville, Tenn., May, 1890.

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Eighteen centuries ago, Ulpian, the Roman Jurist wrote, "A man full of wine can neither see, hear, feel, or reason correctly."

Recently Dr. T. L. Wright has stated this fact, and urged that the testimony of inebriates, while under the influence of spirits as to matters observed in that state, must never be accepted as true unless confirmed by other evidence.

The common opinion prevalent is, that the inebriate unless stupidly intoxicated, has all his usual acuteness of perceptions and judgment, and in most cases may be more clear and accurate as to events and the consequence of his acts, than if sober.

The law assumes and implies that the inebriate is always conscious of his acts and the consequences, and whatever the stupor may be which follows from intoxication, its short duration and uncertainty cannot affect the question of responsibility. This view has no support from scientific study and experience. The rapid advances in the knowledge of brain and nerve diseases, brings out the question of the mental soundness of the inebriate with increasing frequency.

Physicians are called suddenly to answer these questions, and the time has come for a frank open study of them, above the vague theories and dogmatic assertions, which prevail in the court-room, and are asserted as principles of law.

Recently a condition known as alcoholic trance or somnambulism has been brought out in several criminal cases in court, and urged as a distinct state or irresponsibility which should be recognized.

The evidence in most of these cases was so strong as to compel a recognition, and a lesser grade of punishment was accepted. Notwithstanding this great advance, the failure of medical witnesses to understand these and other cases, revealed the urgent need of a larger, clearer study of all the facts. The medical witness should study the facts and be able to draw scientific conclusions from them irrespective of all legal bearings, or questions of law. His sole duty is to point out the facts, and their most natural and probable conclusions. He should have nothing to do with the questions of law and legal responsibility. He is called to determine the physiological and psychological questions involved, not the legal responsibility or degree of punishment.

The physician should never attempt to harmonize the legal and physiological points of a case; he should study and defend the facts alone no matter what the consequences may be. Although alcoholic trance is still disputed, it has won a recognition simply by the array of facts which could not be explained in any other way. Following along this same line of alcoholic disability and irresponsibility, several new questions have recently come into notice; and while the courts refuse to consider them, the medical witness has a double responsibility to study the facts, and demand a hearing for them.

The first question which has come into some prominence during the past year is this: How far can the testimony of inebriates or persons under the influence of spirits, be trusted concerning matters observed in this condition?

This question called for an answer in the following cases:

An inebriate physician partially intoxicated witnessed an assault and swore to the identity and exact part which the accused was supposed to have taken in the crime.

Second, a barkeeper partially intoxicated at the time, swore to the particular man, who shot another in a crowd, where several shots were fired by different persons.

Third, a man under the influence of spirits testified that he saw the person accused put fire to a building which was burned down.

Fourth, a man on his way home from a saloon where he had spent the evening drinking, identified a man in the court-room, whom, he asserted, he had seen breaking into a house.

In the *sixth* case, a man partially intoxicated at the time, swore to witnessing the signing of a will.

In these cases the medical witness was asked, what, in your opinion, as an expert, based on the statements of the witness, and the circumstances of the case, was the condition of the witness' mind, as to the power of clearly observing and remembering the facts and incidents, to which he has testified? Also, do you believe in these cases, that the witness was competent to observe and clearly remember the incidents to which he has sworn?

If the medical expert has formed no higher opinion of inebriety, than that it is a vice in the moral sense, and alcohol produces a state of exhilaration, his answer will be unsatisfactory. But if he is a scientific student, he will form a general conclusion, which will at least approximate very near to the real facts.

In arriving at the facts, the medical witness must start from some general principles which are recognized as established beyond question.

First, the action of alcohol is always that of an anæsthetic, benumbing and paralyzing. 1. The nerve function and the consciousness of nerve impression. 2. The power of coördinating and regulating these impressions. 3. The reasoning or capacity of comparing acts and events is disturbed. Thus both the sense impressions and the power of analyzing and correctly estimating them are impaired.

This takes place in all cases depending on the amount and quality of spirits taken; where intoxication follows, these effects are very clear, but where a smaller amount of spirits are taken, and only partial intoxication present they are not so prominent. It is present in those who use alcohol continuously, and is noted as a general diminution of brain and sense acuteness.

In active life, brain workers, trained experts, and all persons whose work requires delicate nerve adjustment and accuracy of brain and muscle work, soon find the use of alcohol impairing their powers, and abandon its use, especially when they are called to do any particular work.

The musician, the actor, the scientists, and the professional and business man, very quickly discover the impairments which follow from the use of alcohol, not only over the senses, the volition, the nerve and muscle coördination, but the power of clearly realizing the relation of events. The increased action of the heart from alcohol is of short duration, and is surely followed by diminished sensibility and anæsthesia.

The vigor and strength supposed to come from alcohol quickly merges into weakness and debility.

Hence, the man who is visibly poisoned by alcohol, however slight the degree, has defective senses, defective nerve impressions, defective coordination, and defective reasoning. He is literally suffering from the first stages of paralysis, which begins with the senses. He can neither see or discriminate accurately; he is always open to the possibility of false impressions and false conclusions, and is unable to correct them.

His senses may be but little impaired, but his power of comparison, of analyzing events and their meaning be very faulty. He has anæsthesia of the higher brain centres, which does not appear except from close observation.

From these general facts, the study of the individual case resolves itself into a question of how far the person used spirits, and how much he had drank at or about a certain specified time; also the circumstances, conditions and surroundings of the act in question, and the statement of the man; from this medical witness can draw very accurate conclusions.

In the two murder cases referred to, other testimony made the statement of the drinking witness, doubtful. In the third case a clear alibi was established by the accused. In the other cases, although the evidence of the witness was accepted, there was a strong probability of mistake.

The conclusion which appears at this time to be sustained by all the facts and scientific study of these cases, is this:

The testimony of persons while under the influence of spirits, concerning matters observed by them, and their judgment as to events and their meaning, is never accurate, but always open to sources of error and unconscious self-deception which they are unable to correct.

The medical expert should have no hesitation in denying the value and truthfulness of all such testimony.

A second question has come up recently, along this same line of research, only more difficult and involving more accurate psychological and physiological study.

It is this: How far is the statements or confessions of persons, partially intoxicated, or under the influence of spirits, concerning their personal acts, to be accepted as true and veritable?

An answer to this question was sought in the following cases:

An inebriate shot and killed his partner while under the use of spirits. At the station house soon after, he made a confession, which reflected very severely on him. On the trial his statements of the crime was not sustained, but contradicted in many ways. *Second*, a stupid beer drinker shot his wife while drinking, ran away, was captured, told different stories of the crime, each of which aggravated his guilt. The medical experts differed widely on the questions of the truthfulness of his confession, and the man was finally hung. Later evidence appeared which indicated great doubt of his confessions, and made it probable that he had shot his wife in a very different way from that which he had sworn to.

Third, a man was found drowned, and a drinking friend confessed to have pushed him into the

water, while in a state of intoxication. This confession was clear in its details, and he seemed very earnest and contrite. It was accepted as true, and he was sentenced to prison for life. Subsequently it was found that the drowning was accidental, and the confessed murderer was miles away sleeping at this time, suffering from alcoholic stupor. A few hours later he came to the scene of the drowning, and at once came to the conclusion that he had committed the crime.

A fourth case was that of a man, who, after drinking all the evening in a saloon, saw on his way home after midnight, a deadly encounter with a burglar in the hall of a house he was passing. He was taken to the station house, and after a series of questioning, identified the burglar, and swore to many details of the crime.

This was found to be untrue, although he adhered very closely to the details and urged their truthfulness. In reality he had been told what he saw by the officer, whose suggestive questions made up the entire statement.

The medical questions in these cases were answered from the assumption that the use of alcohol, unless to stupor, does not impair the senses and reason on matters that concern the personal acts and conduct. It was assumed that any statements or confessions of crime that periled the freedom and safety of the man, could have no other motive except that of the promptings of a wounded consciousness to repair the injury. It was assumed that no man under the influence of spirits, not stupidly intoxicated, would ever confess to acts not committed, or ever delude himself with such impressions, especially as at this time the brain was in a state of increased activity. All these assumptions were wrong, and contradicted by the facts of all cases. The man under the influence of spirits is always semi-paralyzed; his brain is in a confused state, and never guided or controlled by natural healthy motives; his senses and judgment are weakened, and the repetition of any statement which may impress him, may soon seem a reality which he is never able to correct. His mind is open to all sorts of morbid impressions which quickly appear like realities.

In the lower courts these special phases of brain palsies are seen in the confessions and sworn statements of acts and events observed that are often found to be absolutely false.

The conclusion is evident that no testimony, statements or confession of persons under the influence of spirits concerning his acts, conduct or motives, has any value or can be trusted unless sustained by collateral and other evidence.

A third question along this line of inquiry has also become prominent during the year: How far shall an inebriate, or man under the influence of spirits, be held liable for any acts, or contracts, such as wills, marriage or bargains?

The question the medical man is asked is this: How far is the person in this state capable of appreciating the nature and consequences of his acts? Was his mind in any way impaired to that extent as to be unable to clearly realize his duty and obligations to himself and others? Was the act sane in its execution and reasonable consequences? These questions come up for an answer in the following cases: An inebriate who had drank at intervals for twenty years, had made a will disposing of a large property, and had repeatedly mentioned its terms with pleasure and satisfaction. At his death it was found that he had made another will giving most of his property to the *Freedman's Bureau* for the education of colored children. He had been a very miserly man all his life, and this was an unusual act. The will was made after a drink period, and he seemed to the lawyer and witnesses sober and fully conscious of what he was doing. The medical men held that the use of spirits had not weakened his mind or rendered him incompetent to dispose of his property.

In a *second* case, a man who drank to excess at intervals bought a large interest in a traveling circus while under the influence of spirits. He seemed perfectly sane at the time yet the act was unusual, and he sought to annul the contract, claiming that he was subject to undue influence.

In a *third* case, a man married a strange woman on a short acquaintance; he seemed conscious of what he did although drinking steadily at the time.

In the *fourth* case, a single man who drank steadily, married his servant, an Irish girl recently from Ireland. He was a man of culture and wealth, and the marriage was very unusual.

In a *fifth* case, now pending, a man while under the influence of spirits, placed his entire fortune in a stock brokers' company, signing elaborate, and detailed contracts, which he disavowed later.

The testimony of medical men as to the probable state of the mind, when these acts were performed, is the central evidence upon which the issue of each case must turn. The necessity of thorough scientific study of the mental condition of men who use spirits at intervals or continuously, and the application of all the facts that enter into the history of the cases in question is imperative. It is a purely physiological and psychological question above all legal bearings and common personal opinions current in public opinion.

An almost infinite variety of questions are appearing in the court-room with increasing frequency, involving these facts of the mental condition of the person who uses spirits. The following statement which I have made elsewhere, is sustained by clinical study and experience in all cases.

To-day it is shown that the action of alcohol

on the brain and nervous system is anæsthetic and paralyzant. The use of alcohol to excess at intervals or continuously always numbs and paralyzes the higher operations of the brain; the over-stimulated heart reacts and depression and feebleness follow. All the senses are disturbed and become more or less incapable of transmitting the impressions which are received. The brain is incapable of accurately comprehending the nature of acts and the relation of surroundings when under the influence of alcohol. The palsy which follows from this drug masks all brain action. Delusions of vigor and strength appear; events and their consequences, and motive and conduct are all exaggerated, misconceived, and misinterpreted, and the brain is unable to correct them. The pronounced delusions, illusions, delirium, mania, imbecility, and stupor seen in states of intoxication are only the advanced stages of brain conditions which begin with the first class of spirits. The early changed conduct and speech of men who use spirits are the first symptoms of the paralyzing action of alcohol. More spirits are followed by more paralysis, and finally all judgment and experience and all distinctions of right and wrong, of duty and obligation, are confused and unreal. The supposed brilliancy which follows from the use of spirits is unreal and transient—it is the glamour of the mind which has lost its balance and is unable to correct itself. No other drugs are known whose paralyzing effects on the higher brain centers are so positive and insiduous. The inebriate and moderate drinker have always impaired brain force and nerve power. The automatic nature of their life and brain work may cover up this fact; but change the surroundings and demands of the brain, and its incapacity appears. Every toxic state from alcohol more or less permanently impresses and debilitates brain integrity.

The fear of the law and consequences of acts make little impression in such cases. The brain is anæsthetized and crippled, and cannot realize events and their nature and consequences. The crime committed by an inebriate cannot be the act of a healthy brain. The more pronounced his inebriety and the longer its duration, the more positive the disease and incompetency to reason and control his acts. The effort to fix a point in all disputed cases where sanity and responsibility joins insanity and irresponsibility is an impossibility which every advance of science demonstrates. It is equally impossible to use alcohol to excess for years and have a sound, normal brain. It is impossible in such a case to fully realize the nature and consequence of acts and obligations. It is a legal fiction to suppose that a crime or act committed while under the influence of alcohol was the voluntary act of a sane man. It is a legal fiction to suppose that a sane man would plan a crime or act, then become intoxicated for the purpose of executing it. It is a legal fiction to suppose that premeditation in crime or acts committed by inebriates is evidence of sanity and consciousness of his acts.

Questions involving the capacity or incapacity of inebriates can never be determined by any metaphysical theory of mind or morals.

It is an error for medical men to regard inebriety in any other except from physical point of view. It is a question of facts and their meaning. Facts of heredity, of growth, of culture, and training. Facts of disease, of injuries, of degenerations both local and general, of surroundings, and mentality, and of the entire history of the case, both physiological, psychological, and pathological. From these facts only can any clear conception of inebriety be obtained.

The general problems which are presented in these medico-legal cases are: *First.* Was the person an inebriate, or one who drank spirits to excess at all times or at intervals? If this fact is established beyond question, his sanity and mental capacity may be most reasonably and naturally doubted.

Second. What was the mental condition and the circumstances of the person at the time of the commission of the act in question. Was he sane? Was the act reasonable and just in its effects and consequences? If not, the first suspicion is strengthened, and the irresponsibility of the person must be assumed, and the legal theory must be reversed; the sanity must be proven, not the responsibility.

Third. The medical man has only to gather the facts, and have the reasonable assurance of their accuracy; from this he can point out the most probable conclusions which are sustained by such facts. The question is one of preponderance of evidence, which, if it points to defective consciousness of act and conduct, and inability of control, is far more likely to indicate impaired mind or insanity than any other condition. The limits of scientific study will not sustain, and will not support assumptions of boundary lines of responsibility and irresponsibility.

SCARLATINIFORM ERYTHEMA IN TYPHOID FEVER.

Read in the Section of Dermatology and Syphilography at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May 22, 1890.

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There is perhaps no class of diseases within the broad domain of dermatology which possesses more interest, both in a pathological and in an etiological point of view, than the erythemata. To an investigator this class becomes invested with so much of the alluring as to easily lead

him into the speculative domain of medicine. The subject, however, is so vast and comprehensive as to preclude the possibility of its consideration within the narrow limits of an essay. For this reason, I have taken up but one special form of a certain variety of the erythemata which has been of some interest to me for two reasons, viz.: its comparative infrequency, and the scanty literature which has been devoted to it. The literature of erythema as well as that of typhoid fever contain but a few allusions to the scarlatiniform erythema, or as it is called by some authors, the desquamative scarlatiniform erythema, of typhoid fever.

I have thought that a brief review of the cutaneous manifestation itself might not be inappropriate as an introduction to the subject proper. It has been described under various names by different authors, and we may recognize it in the *scarlatinoïde* of Guéniot; the *erythema punctatum* of Crocker and others; the *roséola scarlatiniforme* of Bazin; the *symptomatic erythema* of Hyde; the *scarlet rash* of Murchison; the *diffuse erythema* of Liebermeister; the *erythéme infectieux* of Jacquet, etc. Some writers have given good descriptions and others have merely afforded an outline sufficient to recognize the condition providing that one had a previously acquired knowledge of it. Brocy, in his excellent paper on "Desquamative Scarlatiniform Erythema," gives a minute description of this affection in general, and dwells at some length upon the difficulties experienced at times in making a differential diagnosis from scarlatina. Besnier, in an article on the "Pathology of Erythemas," distinguishes between scarlatiniform erythema and scarlatinoid erythema, although he is free to confess that the objective symptoms differ but little if at all. The following is a general description of scarlatiniform erythema somewhat abridged from Van Harlingen's description: The disease is ushered in by malaise, lassitude, rigors, etc., which may be severe or slight and which may last several days. Then a fever sets in and this reaches its highest point in two or three days. Nausea and anorexia are rarely observed. There is no diarrhœa; sweating is suppressed or there may be an excessive amount of it. The eruption may come out early. The lesions which first appear consist of very small papules which soon coalesce and form scarlet patches, sometimes very extensive, and accompanied by itching, burning and smarting. The eruption may begin at the upper part of the body and travel down to the feet or *vice versa;* it may also attack several localities simultaneously. The eruption spreads rapidly, sometimes involving the entire body in twenty-four hours. The head and the extremities are usually the last attacked and the former may entirely escape. When fully developed the eruption is characterized by an intense and uniform redness, which, however, shows darker shades in places, as the back of the neck and the abdomen. Occasionally œdema is observed, or a hæmorrhagic appearance is assumed. In three or four days (in rare cases longer), desquamation sets in. Large, dry, and abundant flakes are shed, the epidermis of the palms and soles being shed *en masse.* The nails and hair are frequently shed. A striking feature of the disease is its tendency to relapses. The first attack is usually the most severe, lasting a month or six weeks, then, after an interval of several months to several years, there may be a second attack which is less severe. Successive relapses may then occur with increasing frequency and decreasing severity, until they may even merge into one another.

Such are the salient points of the disease uncomplicated or independent of any other pathological process. It has a very close resemblance to scarlatina, and some cases have simulated the latter disease so closely as to have called into requisition a high degree of diagnostic acumen in order to determine the true status of affairs. I do not purpose to enter into a consideration of the points involved in the differential diagnosis of the two affections, but will relate some cases of scarlatiniform erythema occurring in the course of typhoid fever, and then briefly consider some of the points which are involved in the question of the pathogeny of the process in the particular instances under consideration, and whether the process can be considered as an absolutely independent one, at any time.

Case 1 (personal[1]).—Annie E., æt. 10, had been previously strong and healthy. When 4 years old she had scarlatina and when she was 6 she had the varioloid. About October 17, 1889, she contracted typhoid fever from her mother, the disease declaring itself at the time that the latter was convalescing. The following extracts from the notes of the case are sufficient to briefly outline it:

October 20, 1889. Temperature 102.5°, pulse 100.

October 23. Temperature 105°, pulse 112. Marked red, irregular patches, varying in size from a split pea to the thumb-nail, were observed in the right iliac region. They disappeared on pressure. In addition several small vesicles, of pin-head size, were observed in the patches.

October 24. Patches of a brighter color and observable on pubes, upper portion of abdomen, vulva, flexor surfaces of thighs, but not below the middle third.

October 25. The eruption has become diffused over the entire abdomen and has extended to the chest, while several patches have appeared on the flexor surfaces of the arms and upon the wrists.

[1] I am indebted to Dr. W. W. Graves, of St. Louis, for the opportunity of observing this case, and also to his kindness for the full notes which he kept in this interesting case.

The entire flexor surfaces of the thighs and legs are also involved.

October 28. Temperature 105°, pulse 124. The eruption is at its maximum. The face and scalp are entirely free and the rash is scanty on the neck. On the extensor surfaces of the limbs it is very scanty or absent, the eruption being separated from the healthy skin by a sharp line of demarcation and disappearing easily under pressure to return as soon as the pressure is removed. The eruption is markedly prominent upon the abdomen and at the flexures of the joints. Small cyanotic areas are visible on the abdomen and thighs. The skin of the abdomen was thick, dry, and leathery to quite a degree, not being so much so in other parts.

October 29. Desquamation began on the abdomen and progressed rapidly, being completed in five days and progressing in the same order as the eruption. The desquamation occurred in large flakes; that of the palms and soles being entire casts. As the desquamation progressed the temperature became lowered, so that on the fourteenth day of the typhoid fever it was 100°, the pulse being 96.

November 2. On this the sixteenth day there was a relapse. The temperature rose to 102.5°, pulse 110.

November 3. Temperature 104°, pulse 130. Patches appeared again on the abdomen.

November 4. Temperature 105°, pulse 140. Rigor; pain in the chest. Capillary bronchitis present. The eruption was spreading to the chest and thighs.

November 5. Temperature 105.5°, pulse 150, respiration costal, 70 to 75. The eruption seemed to be fully developed. It was confined, as before, to the flexor surfaces. It was not as intense as the former eruption, being more faint in color and the skin not so thick and dry. There were also fewer vesicles.

November 6. Temperature 105.5°, pulse 160 to 170, respiration 70 to 80. Desquamation began on the abdomen; death appeared imminent.

November 10. During the four days, since the last record, desquamation was rapidly accomplished. The heart's action grew more feeble from day to day, respiration more embarrassed and feeble, delirium more marked until death from capillary bronchitis supervened.

The autopsy, performed twelve hours after death, confirmed the diagnosis of typhoid fever. The spleen, liver, and kidneys were all enlarged.

Case 2—(Case 3 of Dr. J. W. Moore). On Sunday, October 7, 1888, he was called to see a young man of 19, at that time on the twentieth day of typhoid fever. The reason for calling him in was the appearance some hours previously of a widespread rash, which exactly resembled that of scarlatina. It consisted of minute punctiform, bright red papules, with a general or confluent efflorescence on the trunk and near the large joints, particularly on their flexure aspect. On September 24 the patient consulted Dr. Pollock, who found his temperature high and sent him to bed. It was soon evident that he was about a week ill of typhoid fever. The disease ran a tolerably normal course until October 6 (nineteenth day), when an alarming "dip" in the temperature occurred. At 10:30 A.M. a minimum of 96° was recorded, but a recovery took place and at night it was 100.9°. At this time a scarlatinal rash was rapidly spreading over the chest and back. Considerable desquamation followed the disappearance of the rash. The patient recovered, being convalescent on the thirty-sixth day.

Cases 3 and 4—(Whipham). On April 13, 1883, Dr. Thomas Whipham reported to the Clinical Society of London, two cases of enteric fever accompanied by an erythematous eruption resembling that of scarlatina. Both of these cases proved fatal and the presence of typhoid was confirmed by autopsies.

Case 5—(Siredey). A case of typhoid fever in which on the fifteenth day a scarlatiniform erythema appeared, which, commencing in the right cheek, spread rapidly over the face and neck, and by the following day occupied the whole surface of the body. Almost immediately, in the groins, the axilla, and on the back, the epidermis was raised by a serous exudation. Desquamation occurred in large flakes.

A number of cases similar to those given above, may be found in literature. Dr. John Harley records three cases among others which were most probably scarlatiniform erythema occurring in the course of enteric fever. Dr. Wilks, in 1864, made models from cases occurring in two women. The models, which are now in Guy's Hospital Museum, represent the abdomen, forearm, and hand. The rash is of a bright crimson, punctated, macular, and diffused. Féréol reported a case, in 1876, of a young man with symptoms of typhoid fever with a scarlatiniform eruption.

Raymond and Nélaton observed two cases of typhoid fever, in 1878, which were accompanied by this peculiar rash. Moutard-Martin noticed a case in which a rash, which he called papular erythema, appeared on the sixth day of the disease (typhoid fever). The rash gradually lost its bright color and slowly disappeared. The hands and feet desquamated in large patches, the rest of the body showing only brawny desquamation. In one of the patients of Raymond and Nélaton the eruption appeared on the fifteenth day of the fever and in the other on the twelfth.

Before entering into a consideration of the pathology of this condition I wish to allude briefly to a few cases which may, in a measure, prove helpful to a proper appreciation of the question. J. C. Wilson states that a diffuse erythematous rash is not infrequently observed in children and

even in adults with white, delicate skins, during the first week of enteric fever. It is usually marked on the abdomen and flexor surfaces, its usual duration not exceeding three or four days. Dr. Charles W. Allen records a case in which the scarlatiniform erythema was followed by erysipelas about the scalp and face. The rash became confluent upon the back of the neck, sides of the chest, across the lumbar region, and over the lower part of the abdomen, and in the popliteal spaces. Upon the arms it was wholly confined to the flexor surfaces, and was but sparsely scattered over the legs, backs of feet, hands and chest. Upon the chest, just in front of the axillæ, and upon the back and sides of trunk there occurred a noticeable mottling or measle-like eruption of bluish macules. These persisted after the erythema had disappeared, and in the subsequent desquamation were the last to lose their epidermis. Crocker states that scarlatiniform erythema is observed in septicæmic conditions, and in this he is confirmed by a large number of writers upon surgical topics, who have described the eruption under various appellations; also in empyema, and in the enteric fever of puerperal women. The so-called *erythema puerperarum*, which attacks the abdomen and rarely the face and hands, may be included in this class. Flint states that a scarlet rash occasionally precedes the characteristic roseolar eruption in typhoid.

In making an analytic study of the pathogeny of scarlatiniform erythema as it occurs in typhoid fever we are confronted with a problem whose difficulties are increased by the fact that the list of detailed cases is a very small one. This precludes, to a great extent, the possibility of deducing certain conclusions such as might be rationally based upon a study of clinical symptoms. What few cases have been reported, however, seem to point to the fact that the first eruption occurs during or about the first week of the typhoid attack, and may be followed by a second attack during the third week. This would seem to point to a different origin for each attack, *i. e.*, a vaso-motor disturbance of a reflex character for the first attack, and a toxic origin for the second. Besnier, in his excellent paper on the pathogeny of erythema, states that, in the scarlatiniform erythema, the cause is never an exclusive one. He states that the eruption does not depend upon any particular cause either internal or external, but upon the subject himself. There must exist a predisposition or the process will not manifest itself. He has records of cases of the eruption in which it has been apparently produced by widely differing causes not only in different individuals but in the same subject. Unfortunately, almost every condition has come into consideration in this analysis except typhoid fever, and it is in this very one that I am inclined to the view that the pathological process of the disease exerts a marked influence upon the production of the eruption. Whether we admit of a predisposition or not it is, after all, the exciting cause which we are endeavoring to establish not as it produces its effects remotely, but directly. The fact that the eruption has been observed quite a considerable number of times following operations, inflammatory conditions (non-septic in nature), and other conditions which are more or less material in producing vaso-motor disturbances, would seem to point to this process as a possible cause. Moreover, in so-called idiopathic scarlatiniform erythema a pyretic state is observed to precede the eruption, a fact which would seem to lead to the same conclusions. On the other hand, septic and pyæmic conditions of different origin, as well as auto-intoxications from different causes (rheumatism, alcohol, etc.) have been accompanied by the same eruption. Taking all of these facts into consideration, I am led to adopt a conclusion formulated by Dr. J. W. Moore, that the scarlatiniform erythema which shows itself at the end of the first week of typhoid fever "probably depends on a reactive inhibition of the vaso-motor system of nerves;" and that the second attack which is seen in the third week depends "on septicæmia, or secondary blood-poisoning; or both these causes may be present."

That the pyretic condition exercises some considerable influence upon the production of the rash is shown more particularly in Case 1 detailed above. Sudamina was present in addition to the erythema, and we have cases of typhoid fever in which miliary rashes have occurred in addition to the rose spots. The tropho-neurotic character of the rash also finds support in the fact that urticaria is found to occur occasionally in the course of typhoid. In all of these the production of the eruptions by means of medical agents has been carefully eliminated, although the intimate pathological process remains the same, whether the exciting cause be rheumatism, copaiba, gonorrhœa, alcohol, typhoid fever, or mercury. After all, it is the ultimate result upon the skin with which we are concerned. The practical deduction to be derived from the observance of such cases is that we possibly have individuals who, as stated by Besnier, have a predisposition to a certain form of eruption, and in whom any cause which is toxic or which may in any manner produce inhibition of the vaso-motors, will give rise to an eruption closely resembling scarlatina and which has the tendency of recurring at continually shorter intervals. Besides this, the individual becomes more susceptible to the process. In typhoid fever the presence of the eruption would seem to point to a severe involvement, although not necessarily to a high degree of pyrexia, as, in some cases, the severity was indicated by a marked subnormal temperature. In either case the appearance of the eruption was coinci-

dent with the highest, or lowest temperature, or at that time when the inhibitory condition of the vaso-motor nerves was most likely to exist.

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THE RESPONSIBILITY IN INTESTINAL OBSTRUCTION.

Read in the Section of Medical Jurisprudence at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

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The object of this paper is to discuss the question of responsibility in the treatment of intestinal obstruction. It will have reference to the results occasioned by the delay of the attending physician in trusting to relief by medication in preference to operation.

The knowledge of abdominal diseases is making such marked advances, that the question of responsibility must enter into all cases that partake of a surgical aspect. The surgical part of our art is establishing, by its success, definite rules that must be at some future date, so formulated, that they will become not only clinical, but legal points in the treatment of all cases that affect the abdominal cavity. This is getting to be so understood that all advanced workers are compelled to appreciate this branch of the profession. The profession owes to itself, that proper measures should be taken to maintain its standing. If surgery is to be known as a science, then the truth of its assertions must be manifest. An operation to have merit must have in itself sufficient to prove its work. Having proved itself, then it expects, nay, has the right to demand that its standing be recognized. Without such rights what merit is there in anything?

Would any one be justified, to-day, in using an hot iron to control hæmorrhage instead of the ligature? Fact proved itself in this case, yet, Ambrose Parry had no more to justify him in his theory than many an operation just theorized to-day. But it proved itself, therefore it is a fact.

Intestinal surgery of to-day has gone far beyond expectations. The new method had not been asserted until repeated experiments had proved its value. The conditions for operation have not increased, but the certainty of a rational method has made operation possible in all cases that previously called for hesitation.

The day is coming when laws more definite than now will be enforced. It is against humanity's good when old opinions and practices are allowed. Suits of malpractice are more common than formerly, and while many of these are, and will be unjust, still they are the outcome of an advanced science.

The laws do not recognize ignorance of known facts. Of course it is understood that the average physician is not expected to be an expert in every branch of medicine and surgery, but, it is expected that he has at least a superficial acquaintance, sufficient to recognize the fact of the existence of certain obscure conditions; having

arrived at a conclusion, it is his duty to his patient to call in a consultant who has sufficient knowledge to elucidate and correct the difficulty.

This is the day of specialties, and on this is higher education asked for; and in consequence the public are demanding that better facilities be given to maintain a safer existence. This demand is not confined alone to medicine and surgery, but is asked of all the arts and sciences.

The day is coming when the doctor will be held more closely to account for his practice, and results will be questioned that are to-day little thought of.

On January 5th I was called to see a woman that had been under treatment for ovaritis with incidental constipation. Her history gave constipation of two months, and complete obstruction of two weeks' duration. An examination of the rectum discovered a new growth, entirely occluding the canal, that was not possible either to remove or modify. The only thing to be done was inguinal colotomy, the case ending in recovery. This case opens a field for consideration; a field that has received by far too little attention. Whether this was lack of skill or indifference on the part of the physician is a question. Would it not be more correct to say it was both? Lack of skill is not grasping the true condition of his patient, a want of discussion of the case, and an indifference to the gravity of the situation. Even had his opinion been correct, an honest consideration of his patient's welfare, and a desire to relieve the continuous suffering she was undergoing, would have made him suggest some means to alleviate it. If the obstruction would not clear up by continuous purging and repeated injection, which he tried, then more heroic measures should have been taken. Here is where the responsibility lies, for, as the case proved, if the operation had not been done, death would have resulted. If so, would he not have been responsible for the end?

I saw in a medical journal published in March, the report of a case of obstruction of the bowels in which the writer says: "The case lasted eighteen days, and then died from exhaustion after faithful trials with the long rectal tube. The *post mortem* revealed a stricture of the sigmoid flexure." Think of it! In this age that such an admission should be made! That an educated physician should calmly work with a rectal tube until exhaustion carries off his patient, when a sharp knife and a clean pair of hands would have given her a new lease of life. Was this a crime?

I have read with curiosity the numerous formulæ and methods advised for the treatment of intestinal obstruction. Their value having probably been based on a single case which showed more of the characteristics of obstinate constipation than obstruction. After being purged and injected, in time a spontaneous movement occurs, and then the attendant will vaunt to the skies the value of his opinions, and advocate delay when circumstances, probably, have been the only factor. These are claimed as specifics. It might as well be said that antipyrin is a specific for all fevers, as increased temperature is present, but lessening of temperature is not the cure. In claiming such wonderful qualities for these formulæ they lose sight of the fact that more than one condition can arise. A strangulated bowel is different in its cause and treatment from an intussusception; therefore the unreasonableness of all such suggestions. Such is the kind of skill that is exerted in the vast majority of such cases.

To prove the value of operative interference in intestinal obstruction it will be well to look into the mortality of the various pathological changes.

In intussusception forty-eight per cent. of all cases are acute; and in the young the tendency is to the acute form, especially the ultra acute. In the latter variety the age is about one year. Of 269 cases of all ages tabulated by Lichtenstein, 100 deaths occurred in children of one year; and the longest time elapsing from onset was, in ten cases, fourteen days, eighty-three dying inside the first seven days.

Intussusception sometimes cures itself. The method of cure is divided into two distinct categories. The first is in which spontaneous reduction occurs.

The second, is where fecal fistula occurs in the bowel above, or elimination of the invaginated portion takes place.

Spontaneous reduction, while possible, is not based on sufficient authentic ground to make it reliable. The symptoms may have been similar to a definite case, but suddenly terminated in recovery. This condition could have arisen from other causes.

Elimination of the invaginated portion according to Lichtenstein, occurs in about forty-two per cent. of all cases. It is influenced by location. In the ileo-colic variety it is twenty per cent.; colic, twenty-eight per cent., and in enteric sixty-one per cent. It is exceedingly rare in children under two years. If this does occur it is not to be supposed that it ends in recovery. Forty per cent. of all such terminations end fatally. This is due to the condition of the bowel itself for want of proper union, extension of inflammation, ulceration and its discharge into the peritoneal cavity, or giving rise to chronic diarrhœa. Hæmorrhage may occur at the point of separation of the gangrenous portion. This is markedly affected by the age of the patient, increasing in proportion. Lichtenstein says that between eleven and twenty years, it is twenty per cent.; it then steadily increases until it reaches, at fifty or sixty years, fifty per cent., and in those above sixty years it reaches the fearful proportion of

eighty-five per cent. There is but thirty recoveries, and of these forty per cent. die from the secondary effects, therefore little chance is left by delay in operating.

Volvulus of the sigmoid flexure is invariably fatal if operative interference does not take place, as there is no tendency of the bowel to untwist when the canal above begins to distend. These cases are generally rapid in their course. Frequently asphyxiation takes place in the chronic cases, by the enormous distension through interference with the respiratory function by pressure.

In the variety where the sigmoid flexure entwines around the small intestine, Lichtenstein has collected twenty-one cases. This form is exceedingly rapid with the exception of one case, which died in six days; they all died inside of forty-eight hours, a number of which was less than twenty-four hours.

When we consider that variety of obstructure due to strangulation by bands or through apertures, the folly of delay is more noticeable. This variety comprises a great per centage of all ages. Its symptoms are sudden and marked, and there may be in many cases a previous history that will furnish data for diagnosis. What is to be got by temporizing in cases of this kind? Its course is more or less acute and terminates fatally if not relieved.

While special symptoms may be set down as diagnostic of these varieties, he who can possibly diagnose one from the other, with certainty, must be markedly astute and experienced in this special work. Therefore, if it is such a difficult matter, how is the average physician to differentiate? He waits with the expectation that the intussusception may cure itself by one or the other of its modes, or the faint hope that it is a volvulus and may untwist and get well, and while waiting for this his patient may have died from strangulation.

A confusing disease is peritonitis, giving a similarity of symptoms to intestinal obstruction. This is due to extension of the inflammatory products into the muscular coats of the intestines, producing paralysis. As fecal circulation is due to continuous persistalsis, this infiltrature produces local stasis. This obstruction is at times so marked that it becomes the predominating symptom. This variety of peritonitis is then secondary to the primary condition of intestinal inflammation; and its extension to the bowel wall aggravates the already existing trouble. Whether peritonitis is idiopathic or secondary to some other cause, is discussed by the medical and surgical portions of the profession. I am forced to believe as my observations and experience increases, that the latter view is the correct one, and in every case there would be found some exciting cause of a surgical nature that gives use to it. The obstinate constipation that is a frequent symptom of peritonitis shows the action of the inflammation and the reverse condition, when peritonitis arises from true obstruction, shows the intimacy between these two conditions.

As the relationship of these two diseases is so close it is easy to see where direct advantage would be got by operation.

Treves, in speaking of the high mortality in laporotomy for obstruction, lays stress on the fact that operation was not done until the cases were far advanced in a state of collapse; and the gut was in such a condition as to jeopardize the patient's life, and was formerly the last resource. He further says, in proper cases, or where the operation is done early enough, that laparotomy is not such a fatal procedure, and that it is not the location of the trouble, nor the age of the patient that is the factor; it is entirely on the condition of the gut.

The question of the advisability of abdominal section in peritonitis is disputed to-day. There is no question but that abdominal surgery has done more to advance the value of aseptic work than any other form.

The importance of cleanliness has reached its acme, and the technique has increased in proportion. When a student I was taught to look with holy reverence upon the peritoneal cavity, but to-day a pair of clean hands allow of almost anything in this, one time sacred portion of the body. It is an operation that has good grounds for its performance. Would any thinking man hesitate an instant to operate on a patient who showed all the symptoms of marked intestinal obstruction even if peritonitis existed? Here the constitutional condition is being still further lowered by the extension. The relief to the affected bowel would modify the existing general depression, and abatement of the peritoneal inflammation results. Then again if peritonitis was present with existing obstruction, and there was indecision as to which was the cause, is it not justifiable practice to operate? What if nothing is found to exist in the bowel other than extension of the peritoneal inflammation, does not the thorough cleansing and draining of the abdomen relieve the acute inflammation and put the patient into better condition? By this modification is there not less irritation to the bowel? The pseudo strangulation abates, still further relieving the general distress. This is mutual compensation. There is no doubt that the mortality is increased by the endeavor to do too much with the bowel in this condition; all measures should be conservative. The object should be to modify present conditions and correct all abnormal states in the future when everything tends to better results. An artificial anus in preference to resection, if all things were equal, would be better. There is less interference, and time will restore

the bowel tissue to its normal condition, less tissue has to be removed and the walls are not softened by inflammatory products which jeopardize good results.

Laparotomy in peritonitis, simple or purulent, with thorough cleansing and draining, even if obstruction is not present, is to-day the scientific treatment when medication does not give us results in reasonable time. It is good practice, and one that will receive its full credit in time, to use the knife as soon as the case shows marked symptoms, then if any definite change is present, its removal can be done at once. While it is admitted that a certain amount of inflammatory products will be absorbed by the peritoneal surface, there comes a time when its excess must give rise to marked consequences.

What is required of the operator is the next question? Here must of necessity be a familiarity with the technique, and sufficient skill to perform the operation. Technique and skill are expected, for on these depend success. Of all parts of the abdomen, intestinal surgery requires expedition; every moment the intestines are exposed to the atmosphere is that much loss of vitality.

The recent advances made in intestinal surgery have put this surgical work into the safe domain of abdominal surgery. The improvement made is shown when a gastro-duodonostomy that formerly took from two to two and a half hours, can now be done, finished and dressed in thirteen minutes. An acquaintance with the technique can readily be seen is a matter of importance. It is but a few months ago that I saw published an account of a gastro-duodonostomy, which took two and a half hours, in which forty-six sutures were used, and then the paper ends by saying the woman never rallied, but died in a few days from exhaustion. The surprise in this is that the operation was done by the old and tedious method when a better, safer and shorter one had been advised and by repeated experiments shown to be applicable and perfect.

Does this not open a good field for legal action? Could it not be said, and justly, by those concerned, that the proper knowledge and skill had not been shown?

Suppose this had been a case of gunshot wound, by assault, which had injured the pylorus, and gastro-duodonostomy was necessary, and the operation had been performed by the old method, do you not think the defendant would have justifiable ground for argument, and could prove to the satisfaction of the jury that death had been caused by malpractice? Or, if the intestinal tract had been wounded at any part of its length and resection had been done by circular enterorrhaphy instead of anastomosis by approximation or implantation, would it not have the same effect? These are the plain facts that must face us when we undertake this work.

The question of resection of intestine when obstruction has been of considerable duration, and the intestinal tract greatly distended, inflamed and softened, is one that requires considerable attention. This is also the case where gangrene is present either from internal constriction or in reduced hernia. Shall resection be done or conservative means be used by making an artificial anus?

I have heard this subject discussed, and the two opinions expressed by able men. While feeling competent to do a resection by anastomosis with rapidity and skill, I must say that I favor the conservative treatment. I am forced to this by the condition of the parts to be operated on. If you stop for an instant and think of the intestine in obstruction of long standing, you will find the bowel distended to double or treble its ordinary size, and of a consequence proportionately inflamed and softened. There is more or less uncertainty of results, the parts bear no relation to each other, or their normal condition, the tissues are softened and easily injured, the risks of sutures and ligatures holding, the question of the vitality of the plasma that is thrown out, and then the amount of the tract that must be removed to get healthy structure may be entirely out of proportion to the amount that would be necessary if the conservative method was tried.

The surgeon's responsibility is based on his manual skill, judgment and acquaintance with the subject. The moment the knife is used changes the relationship previously existing, and then results are dependent on the opinion that has been given, provided the necessary qualifications are used. The law distinctly says: "He must have the amount and degree of knowledge as advanced by the leading authorities of the day and the results shown by their researches." A strict adherence to acknowledged facts must always keep the operator within the bounds of the law.

It is not discreet to hastily accept the opinion of any one unless the repetition of the idea or method has given results in accordance with previous trials, still it is expected that judgment should not be adversely given because it has the appearance of being not wisely advised. It is our duty to our patient that we should consider any method that improves, though but the slightest, his condition. There is not one here but can call to mind some new theory in the technique of abdominal surgery that seemed far ahead of the then present method; and even some seemed anything but wise. Would it be good judgment or within legal restriction for an operator to resort to methods that are now obsolete, yet giving in their day a certain proportion of success?

The endeavor has been made to show the advantage got by early interference in intestinal

obstruction. This has not been advised without careful consideration and with the thought of the medico-legal aspect of the subject. The latter was not a factor in the years gone by, but to-day, when a certainty of results is known, it changes the relationship of doctor and patient. Mutual self protection will be the thought of the future.

DOES ALCOHOL CONSERVE TISSUE?

An Essay Presented to the Committee on Dietetics at the Forty-first Annual Meeting of the American Medical Association, May, 1890.

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Does alcohol conserve the bodily tissues in the sense of saving them alive, thus staying physiological decay? Or does it simply check the elimination of what dies and ought to go off? If the former, it is one of the marvelous boons to humanity; if the latter only, it is the worst substance which enters the alimentary canal; for, while other substances, in common with it, affect the nervous system, none other, like it, retards elimination and heaps up effete matters within.

But before studying this question, let us glance at the recent advances concerning the food value of this agent.

For what purpose do we eat and drink? First, for the development and repair of the bodily organism; and second, for the production of force—just the same as we put water and fuel into an engine. The idea of spirituality must here be excluded, whatever our religious notions may be. The body is a material organism, as much so as any other, and equally dependent upon material similar in kind to its own composition, or which it may consume for force. And it does not derive this material from original sources; for as a carpenter does not go to the forest and to the mine for material to build a house, but to the mill and the store where the things he needs are found already advanced in preparation for his wants, so there lies between the body and the simple chemical elements of which it is made, the vast mills of the vegetable world whose business it is to combine those simples of nature into organic compounds which are the simples of animal physiology. Hence the highest efforts of the plant world, is the lowest point at which the animal body can begin its subsistence. Also, all such compounds as the nourishers of the body contain nitrogen and are possessed of various other characters which alcohol does not and cannot have. Hence it was easy for Liebig to reject it *in toto* from the category of nourishments, so that it has never got back again. As to the second class of foods, alcohol has carbon in common with them. But they all undergo decomposition, lose their characters and disappear in the body. Yet they reappear in other forms and in other combinations in the excretions, in which they are cast out. Alcohol, on the contrary, is not changed; as alcohol it enters the body; as alcohol it pervades the tissues; as alcohol it quits the organism. This finding astonished the French savants, Lallemand, Perrin and Duroy, whose crucial tests compelled them to go against all former notions and reject it from the class of force producers, as Liebig had rejected it from tissue nourishers. They, however, committed the error of supposing that it was the business of the kidneys to throw it off. This supposition implies that the kidneys have power over it to do with it as they please. This we deny.[1]

Prof. Marvaud, since, went over this ground and confirmed the conclusions of his countrymen so that our own Dr. W. A. Hammond is compelled to say, "Modern science expels it from the category of foods altogether."

Dr. Hammond, however, is unwilling to part with it and so follows it out onto the door-step claiming for it that it is an "accessory food"—substances he defines to be "extremely useful, either as making food more savory, as being promotors of digestion, or as agents for developing nervous or physiological force."[2]

We make no question as to the other subtances he mentions. But of this it can be said that its taste is not particularly agreeable only to those accustomed to it, while as a digestor or a producer of force, facts are against it; for it both retards digestion and diminishes force.

Leaving these notions in the past where they belong as disapproved by modern science, we come to the mooted question of our essay—Whether alcohol conserves the bodily tissues?

It was said by Moleschott, "Alcohol is a savings bank for the tissues." Dr. Hammond hitches onto this and asserts that he believes it to be based on truth, stating himself, "Alcohol retards the destruction of tissue." To this he adds the very singular explanation: "By this destruction force is generated, muscles contract, thoughts are developed, organs secrete and excrete. Now, as alcohol stops the full tide of decay, it is very plain that it must furnish the force which is developed after it is ingested." Here is another of his curious statements, "It is not at all improbable that alcohol itself furnishes the force directly, by entering into combination with the products of tissue decay, whereby they are again formed into tissue without being excreted as urea, uric acid, etc." By this only, he thinks, "can be reconciled the facts that an increase of force and a diminution of the products of the decay of tissue attend upon the ingestion of alcohol."[3]

Now all this is purely hypothetical and imag-

[1] See this at length in "Alcohol Inside Out," by the author.
[2] Hammond's "Treatise on Hygiene," 1863, page 526.
[3] "Hygiene," page 541.

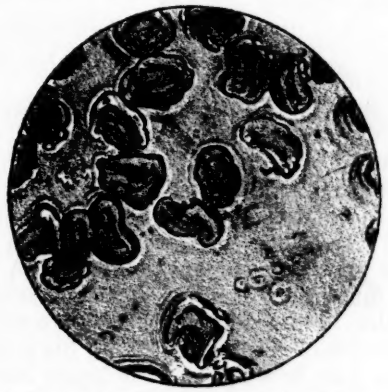
inary, and contrary to our conceived notions of physiology. That alcohol lashes the heart into temporary excitement and arouses some spasmodic muscular efforts, we willingly allow, but that the alcohol furnishes of itself one particle of force must be denied. In appreciable quantities we know it lessens the excretion of carbonic acid and of the urinary compounds, and also the excretion of every other secreting organ. Even the breasts fall behind in the production of their usual solid elements under the presence of alcohol to make milk. Dr. Hammond after adjusting his diet to the amount necessary to preserve his bodily weight, added in the course of five days, 7½ ounces of alcohol. During this time he noted that the pulmonary and urinary excretions fell off. At the end of his experiments he also noted that he had increased in weight 7⅛ ounces, or about as much as he took of the liquor. Of the two observed facts—the diminished excretion and gain of weight—he says, "They cannot be set aside," and goes on to explain them as follows: "First, retardation of the decay of the tissues; second, diminution in the consumption of the fats of the body; and third, increase in the assimilative powers of the system, by which the food was more completely appropriated and applied in the formation of tissue."[4]

Now we believe his observations to be correct,—that there was diminished excretion and gain in weight, but that he is wholly at sea in their explanation we equally believe, and for the reason that he has wholly disregarded the physiology of the most essential agents concerned—the blood-globules or cells. If we go back of what he has done and study the action of alcohol on these important bodies, we shall find an explanation which is grounded in fact and not gratuitous theory.

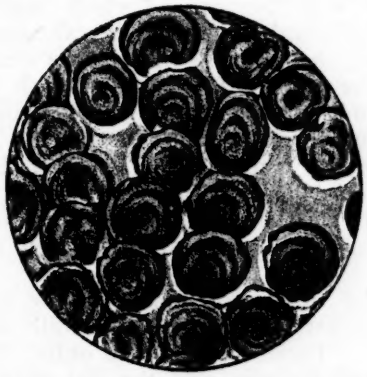
We accept, as physicians, that the blood is composed of two parts, the serum and the cells; and that it is the cells and not the serum which absorb and carry the gases. They take in the oxygen for the internal fires and bring out the ashes from the combustion, and are also concerned in supplying the secretory organs with pure blood for their special functions. Indeed they are the most vital working elements of the whole body. When they are all right and well supplied with oxygen the whole body feels the enlivening influence. When, on the contrary, bad air, obstructive diseases, etc., depreciate their quality, the whole organism is languid, weak and ineffective. Much obstruction either to the entrance of oxygen or escape of the carbonic acid, puts life in jeopardy at once.

Now what happens when alcohol gets into the blood? Let anybody mix alcohol with blood under a good microscope and see. Some of the cells are broken up and disappear; all the rest contract, giving up a portion of their watery contents. I have two little kittens' bladders with which I have made many experiments. They are only cells of a larger kind than the globules. I put alcohol and water into them and place them in water; they swell and grow round and full. I put water into them and place them in an alcohol mixture and they shrink; and this is precisely the relation when alcohol is taken into the circulation. It renders the serum an alcoholic liquid in which the watery cells float so that the alcohol approaches them on the outside, drawing out their watery contents, thus shrinking and shrivelling their form.

The pictures here presented were photographed directly from the blood. One shows the cells as they naturally appear under a high power; the other is under the same power but the blood was taken from the arm of a drinking man, then heavily under the influence of strong drink.



Blood-cells taken directly from a man then heavily under the influence of liquor. Tolles' one-fiftieth objective.



Natural blood-cells under the same power.

There can be no mistaking the difference, showing that alcohol does in the body precisely what it will do to the blood on the outside. There is no theory about it. It is a matter of complete demonstration, only the effects vary with the amount and concentration of the liquor. This being an extreme case, a little more would destroy life by wholly destroying the function of

[4] "Hygiene," page 537.

these cells upon which life depends. Small potations would not make so marked change, and hence be difficult to detect; yet the functions of these cells are known to be depreciated by even small doses.

Now, how comes it that alcohol shrinks the blood-cells, the kittens' bladders, etc.? It is by peculiar osmosis; for it has no attraction for the substance of the animal membrane, at least no attraction as compared with water, hence the water readily passes through the membrane while the alcohol does not; this affinity or otherwise for the membrane being a powerful factor governing osmosis.[5]

Not only does alcohol affect the globules in this peculiar way but it exerts the same kind of influence on moist animal tissues everywhere — the brain, nerves, tendons, muscles — drawing out their water, shrinking, hardening, stiffening them till the hard drinker in middle life, is advanced to the decrepitude of old age.

Looking then upon the shrunken condition of the blood-cell, does anyone require me to say, "They cannot do their work?"

Dr. Hammond was correct in his observation that they did not cast out so much dead waste, in the form of urea and carbonic acid. With the fact of the peculiar action of alcohol on the blood-cells before us, this is just what he had a right to expect. Indeed it could not have been otherwise. As surely as shadow follows upon light, so surely must a depreciation of the character of the globules be attended with a depreciation of their functions in elimination. But his construction of the gain in weight by the liquor into conservation of tissue, is the sublimation of theory: As though by putting a dam across a running brook, we stop the springs which supply the water! As though by getting the ash-men drunk and, finding less ashes going to the dump, we conserve the people's fuel! As though by getting the undertakers off their legs by brandy and because fewer bodies go into the cemetery, therefore, the brandy conserves the health of the city! The blood-globules are the ash-men and the undertakers of the body and can no more do their work when drunk than drunken men can do theirs.

Again, let this use of brandy by the ash-men and undertakers go on for any length of time, what then? There would be an outcry because of obstructed furnaces, and the city would reek from end to end with the dead in our homes and along our streets. Just so every body knows how foul is the breath and the exhalations from every pore of the body of persons who heavily indulge for a time. They get overflowing full of the dead waste which has accumulated within.

Their's is not the smell of living tissue. Their faces swell, their bodies bloat and increase in weight. Moreover, when these men leave off their drinking and return to their feet and senses, they would spry around and do more than usual the next few days till the city was clean and sweet again. Exactly this is what all observers notice — more excretion after the liquor is withdrawn for a time, till the wastes are removed and the body and breath lose their stench, the bloating goes down, the face and eyes become clear once more. But how about Dr. Hammond's $7\frac{1}{5}$ ounces? Was it not of this sort of tissue, to disappear as soon as it came?

In the face of this series of facts, who can believe in the theory of conservation of living tissue, rather than in the obstructed elimination of dead waste — waste of tissue and combustion — which health demands should be thrown out? The retention of such is a positive hindrance to normal physiology—as inimical to good health as an obstructed stove to a good fire.

Depression of the globules depresses every other vital function—heat, physical and mental force. Dr. Hammond admits that he was not himself as well, and was not inclined to exertion while taking his drams. Considering then the theory of conservation of tissue untenable and contrary to fact—the effect of alcohol on the sensitive blood-globules and their function explaining all the observations — the time has come for us to change our practice to accord with facts or the legitimate, rational deductions from them.

This action of alcohol on the blood-globules opens up a wide field for therapeutics, both as to diet and medicine, which should appeal to thoughtful consideration.[6]

[5] See this more largely explained in "Alcohol Inside Out."

SOME SPECIAL REASONS WHY THE LAPAROTOMIST SHOULD CONSIDER THE MEDICO-LEGAL ASPECTS OF ABDOMINAL SURGERY.

Read in the Section of Medical Jurisprudence at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY HENRY O. MARCY, A.M., M.D., LL.D.,
OF BOSTON, MASS.

The evidence that the question under discussion is many-sided is shown by the different titles which the distinguished specialists have chosen who are announced to furnish, to-day, contributions upon the medico-legal aspects of abdominal surgery. I have selected a very minor subdivision of the topic, to which I propose to confine my remarks, to wit: namely, the opinions which the great body politic of the profession hold in relation to the justifiability of abdominal operations in general, and the influence which such opinions exert, as commonly expressed in every-day practice.

[6] See much more of this in "Alcohol Inside Out."

Twenty years have elapsed since I became a special student of abdominal surgery. Leaders of the profession at that time in New England, without doubt with the most disinterested motives, earnestly gave me warning that if I allowed myself to be known as having special interest in this department of professional work, as viewed from the surgical aspect, it would be fatal to my ambitions as a young practitioner, and justly put me beyond the pale of general medical support. The argument was enforced by the citation of the experience of Sir Spencer Wells, who, not long prior to this period, had visited Boston, with the statement that many leading members of the profession in our goodly city had refused presentation to this distinguished surgeon, upon the ground that the course he was pursuing in the treatment of abdominal tumors was entirely unwarranted and unjustifiable. They emphasized the argument by citing the fact that Drs. Gilman Kimball, of Lowell, and Horatio R. Storer, of Boston, then, and for a long time after, the two leading specialists of New England, were looked upon with general distrust, without the hope of general professional recognition and approval. The only reply to the argument, that modern surgical procedures rendered warrantable a large class of operations hitherto considered improper, was met with the blunt statement "that you will kill your patients, as we have done, and you should profit by our experience."

When, scarcely more than a decade ago, I made application to one of the leading hospitals of Boston for a small ward to be devoted exclusively to the surgical diseases pertaining to women, the answer was, "It has not yet come to the knowledge of the Trustees that there is any demand for the recognition or relief of this supposed class of sufferers."

At about the same date, in another of the general hospitals of Boston, when it was proposed to appoint as a special surgeon in the department of diseases of women a man who is known wherever surgery is read, the entire staff threatened resignation, and caused the withdrawal of the nomination. It would not be difficult to multiply evidence of this character and show that the conservatism of the medical profession in America, especially in New England, had in reality been one of the greatest obstacles in the way of modern progress and reform, notwithstanding we now recount with pride that to American surgeons, under the leadership of a small number of men, whose fame will remain immortal, is accorded the high honor of establishing upon a sure basis gynesic surgery.

In the rapid progress of events the pendulum of public opinion has, in a measure, swung in the opposite direction, especially as represented by the younger and better educated class of practitioners throughout the country. Many of the seniors, however, hold in ill-disguised contempt the teachings of modern surgery, and do not fail to improve the opportunity, whenever offered, of expressing their opinions in forcible language, and this, unfortunately, more often to the laity. Instances of this are not wanting in the everyday experience of most of us. Some time since a prominent member of the profession, claiming to be a surgeon, declared emphatically "that antiseptic surgery was a nonsensical delusion, but that so much had been said upon the subject he found himself obliged to use carbolic acid, though he hated the nasty stuff, lest he should be thought behind the times, and in case anything went wrong with his patients, he should be held accountable to the courts for not having discharged his obligations in a due and just manner."

Within a few days, in consultation where uncertainty exists in the diagnosis of an obscure abdominal tumor, I proposed an exploratory laparotomy, and was met with the reply, "If you do it you will kill your patient"—the opinion of a surgeon who has made special repute as a medical expert. I offer, in further illustration, the copy of a letter written by a senior member of the profession, and a medical teacher, to a lady who, after having been for a long time under his care without improvement, wrote him that she purposed to change physicians and seek surgical relief. After she obtained from me the opinion that her sufferings, in a large measure, were dependent upon a glandular endometritis following abortion, and that curetting was advised, she communicated my opinion by letter, and received the following reply:

BOSTON, Sept. 30, 1889.

Dear Madam:—Before you have the inside of your womb scraped out, make your will, etc. It is not a safe operation, and it is quite singular that other eminent doctors have not *done* it. I will bet $1,000 it won't cure you. Of course you can have it done if you wish.

Yours truly, ———

Notwithstanding such forcible advice the minor operation was performed with satisfactory results. Differences of professional opinion should be expressed freely without reservation on all *proper occasions*, the most earnest criticism upon all doubtful subjects should be thoughtfully made, and reasons for the faith that is in you should be given. The border lines of our knowledge should ever be kept clearly defined. A half truth is oftentimes more dangerous than an error, and, when stated loosely, is sure to come home to discomfit its advocate. The patient has a legal right to demand from his physician only average, reasonable, prudent attention and care, be it medical or surgical.

The specialist, however, assumes a somewhat different relation to his client, who has a right to demand from him the best service which the subdivision of his art can render. The abdominal surgeon is a specialist, in a division of his work,

calling for the highest skill, the issues of which are fraught with the greatest dangers. Unlike many of the problems confronting the general surgeon, the unknown factors of the equation must often be expressed by more than x and y, and when rendered in known terms, demand fertility of resource and promptness of action as in no other branch of surgery. He who is most experienced ofttimes has the greatest misgivings and is harassed with painful doubts as to his best course of action, not unlike the experienced general in the field who necessarily contends with disadvantages incident upon the lack of knowledge of the force and position of his enemy. Like him, he is most successful when promptitude of action is enforced with boldness, courage and caution, the details of which should be as familiar to him as the movements of disciplined troops or the ritual of a church service.

However, like an official, high in office, where there are great responsibilities, attendant upon the discharge of duty, the surgeon is ever open to public criticism, oftentimes most forcibly expressed by those who least comprehend the situation, or have knowledge of the subject.

Viewed from the medico-legal standpoint, abdominal surgery has little to fear except from ignorance on the part of him who practices and of him who criticises. It is the duty of the specialist, in his department, to teach the general profession, in a simple and clear manner, the outline at least of the fundamental factors, upon which are based the measures of surgical relief, although he may not be asked to trace them in their ever-varying kaleidescopic pattern, as presented in every day practice. Then, and not till then, will the undertone of professional criticism be corrected, to which source may too often be traced the discontent which arises in the mind of the sufferer, and causes him oftentimes to believe that he has been the victim of mal-practice.

Entertaining such an opinion and nursing generally imaginary wrongs, he seeks legal counsel. Listening to a one-sided story, with the thought of prospective fees, the attorney is willing to commence suit, under the encouragement of what Dr. X. has said in criticism, with the statement that it is probable Dr. A. will compromise a settlement rather than be at the trouble and damage incident upon a public trial. Such cases are not rare, and the attorney is right in the supposition that the surgeon is especially sensitive in regard to his reputation, who willingly compromises to avoid notoriety. Thus a species of black-mailing has developed in all the great centres of population.

A noteworthy illustration is furnished in the late experience of our friend, Dr. William L. Baker, of Boston, several points of which case are worthy of comment. For that which seemed to Dr. Baker good and sufficient reason, he advised in the case of a fever sufferer, the removal of the ovaries and tubes. After a careful explanation of the condition and reasons, she was admitted into a charity hospital, and before the operation signed an agreement assenting thereto and holding the doctor harmless of the results. Recovery followed, and, in due time the patient was discharged. Sometime later, there developed in the line of the abdominal wound, a ventral hernia, which at the time she consulted me, was fist-size. Having been sent to my hospital by a wealthy and distinguished gentleman who had become interested in her condition. I advised her to return to Dr. Baker for further treatment, but she expressed a desire to be under my care for the particular condition which caused her present suffering. However, before completing arrangements for operation, it transpired that it was her purpose to secure my opinion, as to the exercise of proper skill and judgment at the former operation, she stating incidentally, that she had consulted one or two other surgeons, well known to me, who had considered the results of the operation questionable. Here the interview ended. Sometime later I was requested to appear in her behalf, as an expert, with the statement that a suit had been entered against the hospital and Dr. Baker for large damages. This invitation I promptly declined. By such adroit measures the prosecution sought to obtain expert testimony, and it was only after three long-continued and expensive trials, subjecting Dr. Baker to a large expenditure of money, vexation of spirit, and loss of time, that he was acquitted of blame. It was held by the court that the written agreement, entered upon prior to the operation was not in itself sufficient; the plaintiff claiming that she did not have the proper understanding of the character of the operation, and its possible attendant dangers and results. Although such an agreement is considered by many as a proper precautionary measure, it may, perhaps be questioned, if in some instances at least, it might not raise doubt and distrust in the mind of the patient, reasoning that the doctor himself was not quite clear in the premises, and thus sought to throw the burden of responsibility of doubt upon the sufferer, which he himself should justly bear. This construction at least might be placed upon it by the average juryman, enforced, as it is sure to be, by the sympathetic plea of the eloquent attorney.

I have never deemed it wise to ask it in my own experience. I understand that in some of the large public hospitals of Massachusetts, there is an incorporating clause that any person seeking the advantages of treatment therein, is debarred from legal redress from either the corporation or attendant physician or surgeon.

I cannot doubt that this is a wise, precautionary measure. I suppose we would all agree that

an operation of such major importance as a laparotomy should be undertaken only after a careful consultation with one or more surgeons, and that in the presence of friends and competent witnesses, the measures determined upon should be carefully explained in regard to the dangers involved and possible subsequent contingencies, even if the hoped-for result follows, and praise is justly awarded the skillful operator, the lesson of thoughtful prudence will not be lost, but on the other hand, be of great value to the operator, adjudged considerate as well as skillful. In the advent of disaster, it will prevent unjust criticism, and furnish our best protection in defense before the courts.

When doubts arise as to the advisibility of operative interference, these should be clearly stated to the patient and friends, the operation should be distinctly classed as permissive, rather than advised, and after a proper explanation of all its details, the final decision should be left to the sufferer and her friends, and not determined by the surgeon, or performed without their knowledge and full consent.

With such precautions properly enforced, there is little liability of legal complications, following operations in the hands of skillful surgeons. But it must never be forgotten that the first duty of the expert is to carefully consult with and secure if possible, the distinct approval and cooperation of the attending physician or physicians. By such a course professional jealousies are, best of all, allayed, interests harmonized, and coöperation for an honorable protection secured.

THE PATHOLOGY AND TREATMENT OF SYCOSIS.

Read in the Section of Dermatology and Syphiligraphy at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY JOHN V. SHOEMAKER, A.M., M.D.,
OF PHILADELPHIA, PA.

Pathology.—In order clearly to comprehend the pathology of sycosis it is of advantage to consider the structure of hair, the mode of its growth and nutrition.

Hair is a modification of the epithelial layer of the integument. The root of each hair is lodged in a little pit called the hair follicle. The follicle descends through the substance of the skin into the subcutaneous connective tissue. Its orifice is shaped like a funnel, the narrower and lower end of the funnel being known as the neck. Below the neck the follicle widens and terminates in a bulbous expansion. The proper wall of the hair follicle belongs to the corium and is divided into three layers: an outer, a middle and an internal. The outer is the thickest and consists of connective tissue fibres disposed parallel to the long axis of the follicle. It supports a small artery and vein and nerve fibres. The middle layer contains smooth muscle cells. The inner layer is structureless and transparent and is continuous with the basement membrane of the corium.

A small oval or pear-shaped body projects into the cavity of each follicle. This body is called the hair papilla, is composed of connective tissue fibres and corresponds to the other papillæ of the corium. It is continuous with the outer or fibrous layer of the follicle and contains, according to Biesiadecki, two minute arteries, two or more veins and medullated nerve fibres. Its upper surface, which projects into the bottom of the follicle, is covered by the lining membrane of the follicle. This lining membrane is formed by cells derived from the deeper layers of the cuticle.

The lower portion of the root of the hair expands to form the hair bulb which rests upon and embraces the papilla. The bulb is composed of cells which resemble those of the rete malpighii or stratum mucosum, the lowest of the four epithelial layers.

The root and shaft of a hair consists of a medullary substance and a cortical substance, invested by the hair cuticle. The latter is formed by a single layer of non-nucleated hyaline scales which overlap each other. External to the hair cuticle are found an internal and an external root-sheath. The inner root-sheath is continuous with the stratum corneum or external layer of the epiderm. The external root-sheath is simply another name for the internal layer or epithelial lining of the hair follicle, and is derived from the rete malpighii or stratum mucosum.

It will thus be seen that the nutrition of the hair must depend upon the follicle in which it is lodged and especially upon that portion of the follicle called the papilla. The papilla, however, is but an expansion of the outer layer of the hair follicle and the vessels which surround the follicle and those which enter the papilla are in direct communication. A basement membrane is all that intervenes between the vascular papilla and the bulb of the hair. The hair bulb contains columnar and polyhedral cells, united by cement substance. These cells resemble those of the stratum mucosum, are continuous with those and with the outer root-sheath which is, as I have said, an inversion of the stratum mucosum or a dipping downward of that layer in order to line the hair follicle. The cells of the bulb actively reproduce themselves, the older ones being constantly forced upward by the development of the lower. As they ascend they become gradually transformed into the component cells of the hair root and shaft. Unna has shown that in certain cases the hair may become detached from the papilla and ascend within the follicle to a point just below the opening of the sebaceous gland, deriving its nutrition meanwhile from the cells of the outer root-sheath.

Wertheim, in 1861, and Köbner in 1864, reported the result of their microscopical examination of hairs taken from the victims of sycosis. But, however interesting and, to a certain point, instructive such inspection may be, it obviously cannot, in itself, explain the morbid anatomy of the process. That the cells of the hair bulb are saturated and swollen with inflammatory products can be readily demonstrated. The question then presents itself, whence are these products derived? For the solution of this query we are indebted to Dr. A. R. Robinson, of New York. This author's discoveries depend upon the examination of sections of diseased skin removed from patients afflicted with sycosis. By such a method he was able to study the malady in its different stages. The hair, containing neither blood-vessels nor nerve-fibres, cannot be the seat of the inflammation, which must, therefore, be sought in the part from which the hair immediately springs, viz., the follicle. It is, in fact, in the vascular, external layer of the follicle, that the process has its origin. This outer wall of the follicle belongs to the corium or true skin and is, with the papilla, the source from which the hair draws its nutrient supply. Sycosis, in other words, begins as a peri-folliculitis; that is, the vascular loop which is supported upon the outer wall of the follicle, which it surrounds, becomes engorged, and all the phenomena of inflammation ensue. These phenomena—the active hyperæmia, disordered innervation, transudation, exudation and emigration of white cells—are essentially the same in every tissue and need not be rehearsed before this audience. Suffice it to say that a sero-purulent fluid is soon poured out by the vessels of the follicle and the papilla; that this fluid, after saturating and penetrating the internal layers of the follicle together with its lining membrane (the external root-sheath) obtains entrance into the cavity of the follicle. Once within the cavity, the cells of the hair root are permeated and swollen. Eventually the root becomes detached from its sheaths. As the fluid accumulates within the follicle, it is forced to the surface, which it gains by dissecting its way between the hair root and its sheaths. In other cases, again, it breaks through the epidermis near the hair.

The grade and the extent of the inflammation will account for the macroscopic appearances of the disease. If the process be intense the hair root and its sheaths, with the papilla, are destroyed and permanent baldness is the result. At times the action is so high that the entire follicle, the sebaceous and sudoriparous glands and the substance of the corium itself, are broken down and replaced by cicatricial tissue. As a rule, however, the papilla escapes destruction and the hair is consequently reproduced upon subsidence of the inflammation.

Treatment.—Without trenching upon the subject of etiology, I will confine myself to the statement that the predisposing cause is undoubtedly depressed vitality, however produced. Nervous exhaustion due to prolonged anxiety or dissipation, to excessive physical exertions and to chronic impairment of digestion are present in most cases of sycosis and certainly coöperate in its production. This being the case it follows that, although local treatment is, indeed, of paramount importance, yet the value of constitutional measures should not be overlooked. It is often of service to begin the course with a mercurial cathartic. Every means should be made use of in order to invigorate the system. The appetite and digestion should be improved by the administration of a mineral acid combined with a bitter tonic, such as chicretta, gentian, or cinchona, with the addition of some nux vomica, hoangnan or strychnine. The diet should be judiciously supervised and should consist of easily digestible and nutritious substances. The action of the bowels and liver should be carefully watched. Fresh air, sunlight and cheerful society should lend their aid. Where debility is marked massage and static electricity exert a very beneficial effect. Arsenic is frequently of decided service. In cachectic subjects, Donovan's solution in doses from three to ten drops three-times daily is of positive utility. If the patient is anæmic iron should be administered, either alone or in combination with arsenic, phosphorus and cod-liver oil. I have often obtained excellent results from the iodide of iron given in doses of 2 or 3 gr. in pill form. If suppuration is excessive the phosphates or hypophosphates, chlorate of potassium or sulphide of calcium will be found beneficial.

The local treatment of the acute stage should be depletory or emollient. Here the question at once confronts us, what shall be done with the hair? Shall it be shaved or plucked out by the root in order that our remedies may come into the most absolute contact with the surface? Now, although sanctioned by the advice of Hebra and practiced by many, perhaps most dermatologists, I unhesitatingly affirm that I have witnessed better results by merely clipping the hair as short as possible with scissors. Shaving is an excessively painful, not to say brutal treatment, and its advantages are by no means commensurate. The passage of a razor over an acutely inflamed surface, and the division of the coarse hairs of the beard must certainly aggravate for a time the activity of the inflammation. The final results never compensate the harshness of the method. I may say nearly the same as regards epilation. In the beginning of the disease the hairs are tightly compressed and their extraction is positively painful. Whereas, in the natural course of the affection, they soon become loosened when they may be easily and painlessly plucked.

When the hair has been closely cut we have our choice of a host of applications. These may be used in the form of lotions or ointments. If scales or crusts have already formed, they should be removed by means of a poultice or an oil dressing. In some patients ointments, in others lotions are found more serviceable. Individual temperament or susceptibility, also, may indicate the use of a warm or a cold lotion. A weak solution of hamamelis, lead water and laudanum, a solution of acetate of lead with sulphate of zinc, are among the most useful agents. A dilute solution of corrosive sublimate—from ½ gr. to 1 gr. or 1½ gr. to the ounce—is likewise beneficial. A bland oil, such as olive oil, cod-liver oil, fluid oleate of mercury, or oil of ergot, are very useful in this stage. These oils may often be advantageously combined with emollient or narcotic substances, such as arrowroot, carbonate of zinc, carbonate of lead, opium, arnica or belladonna. An ointment containing zinc, lead, or bismuth oleate is serviceable, as is likewise calomel or white precipitate in the proportion of 10 grs. to the ounce of lead, simple cerate, cold cream, cucumber or oxide of zinc ointment.

Local depletion is often of signal advantage in the acute stage. The lesions should be freely opened with the knife. The serum and pus are evacuated, the congested vessels relieved and the circulation in the parts is stimulated. The absorbents are likewise stimulated. Depletion should be performed twice or thrice a week, bleeding should be encouraged by sponging the surface with warm water, after which the medicament, lotion, oil or ointment should be applied anew. Unna asserts that the advantage of depletion is only temporary, that it creates an absorbent surface which invites a renewed attack of the disease. I have never, however, witnessed any evil results from the practice.

As the disease progresses the violence of the initial symptoms abates and the local applications should assume a more stimulant character. The oleate of mercury, of from 5 to 20 per cent. strength, the nitrate of mercury ointment, 1 to 3 drachms to the ounce of zinc ointment or other bland excipient, sulphur, tar, beta-naphthol, resorcin, ichthyol, corrosive sublimate, salicylic acid, boric acid in ointment form, are then found useful. Veill has recommended a 2 per cent. alcoholic solution of pyrogallic acid, and Professor Pick, of Prague, a solution of tar in alcohol. Green soap, nitrate of silver, caustic potash, tincture of iodine and other strong cauterants are also sometimes applied with benefit to the lesions of obstinate cases, although I have seldom had occasion to resort to such heroic measures.

Sycosis is very apt to be a stubborn affection. Relapses are frequent, especially if the occupation or habits of the patient are of a nature to cause irritation of the skin. In order to guard against relapses the patient should not be dismissed until entirely cured. Bockhart advises that for some time after active treatment has ceased the patient should wash his face once or twice daily with a 1 per cent. sublimate solution.

SOME MEDICO-LEGAL QUESTIONS THAT ARISE FROM THE MISTAKES OF ABDOMINAL TUMORS FOR PREGNANCY.

Read in the Section of Medical Jurisprudence, at the Forty-first Annual Meeting of the American Medical Association, Nashville, May, 1890.

BY DAVID W. YANDELL, M.D.,
OF LOUISVILLE, KY.

Some practical questions arise from the following cases:

A., æt. 19, had an abdominal tumor of four months' standing. Two physicians, after a long and careful examination, pronounced it a gravid uterus. This was indignantly denied by the patient, and the most deplorable family feeling and bitter feud followed. Eight months later the mistake was discovered, and an ovarian tumor was removed weighing 119 lbs.

B., a widow, married four years without issue. Twelve months after widowhood she was sent to me to be operated on for ovarian tumor. Two months later she was delivered of a healthy boy. The mistake of the physician in the first case caused the most poignant grief to a large number of excellent people. The mistake of the physician in the second case saved the woman from disgrace, for being sent a long distance from home to have the tumor removed, the labor was kept secret.

C., a healthy woman, married an invalid physician. Three years later, without having had issue, the couple separated. Twelve months later she married a robust, vigorous man. Five months after this the abdomen began to enlarge. She was rejoiced at the thought of becoming a mother. She had, or thought she had, all the usual symptoms of pregnancy. Her menses ceased, she consulted her family physician and engaged his services for the coming event. Eight months passed, when the abdomen had acquired enormous size. Another month passed; what was claimed to be labor pains set in; both the nurse and doctor were summoned. While the latter was making an examination a severe pain was followed by a great gush of waters, the abdomen collapsed and the supposed pregnancy was ended.

D., a young woman, newly married, had at expiration of five months all the natural and physical signs of pregnancy. At the expiration of what should have been the full term, she had a gush of water without a fœtus, and a collapse of the abdominal walls, and so the case ended.

The question of responsibility in the diagnosis and treatment of such cases, is one in which the best judgment and skill may be mistaken. Some general facts which should govern in these cases are as follows:

1. The diagnosis must rest on a group of well observed facts which, in all ordinary judgment, can admit of no other possible meaning.

2. If the facts are uncertain and the conclusions admit of a doubt, it is the duty of the physician to submit the question of responsibility to the family and share it with some one, otherwise he will be culpable.

3. The physician is only responsible for the exercise of the best judgment and skill he may possess. He cannot be accountable for errors of judgment, unless they were from want of proper care and diligence, which were in his power to have used. He is also bound to anticipate and provide for the possible consequences which might follow from a mistake of diagnosis and treatment.

4. The physician is expected to use all care and diligence, and take time for reflection in determining the diagnosis; which should be based on the preponderance of facts, and their most probable natural meaning. The physician is held liable if he neglects the exercise of ordinary skill and forethought in both the treatment and counsel to the case.

5. Finally, the physician is liable if he subjects the patient to peril of life or reputation, by a false diagnosis or operation. If he assumes a certain amount of knowledge, that is not sustained by the facts both in this and other cases, he is liable. The physician who undertakes the care and treatment of cases of abdominal tumors, is assumed to possess skill, and exercise care beyond that of the ordinary physician. He is liable for carelessness, neglect, ignorance, and omissions to study the facts in such cases carefully, and make a reasonable diagnosis, on which to conduct a reasonable treatment.

A PHARYNGEAL ANEURISM.[1]

BY C. W. RICHARDSON, M.D.,
OF WASHINGTON, D. C.

The case I present for your consideration to-night is one of unusual interest. I exhausted every means within my power to induce the patient to present herself before you, but failed to accomplish the desired result. My efforts in this connection were so persistent as to drive her from me. It is totally unnecessary to give any account of history, as it bears little upon the subject in hand. The woman is Irish, single, 35 years of age. She consulted me to obtain relief from excessive dryness of pharynx and "stuffy" sensation in nasal cavities. Exposure of mouth made manifest a large pharyngeal cavity, the walls of which, in all directions, presented the evidences of marked glandular destruction and atrophy of the mucous membrane. That which especially attracted my attention in the pharyngeal cavity was a prominent bulging mass to the right of the median line, typically represented in the drawing I here present. The life-like character of this tumor cannot be represented by the pencil of the artist.

I will attempt to describe it: The mass extends from a little to the right of the median line to the right lateral pharyngeal wall, and from the level of the base of the tongue to a line corresponding to the lower border of the soft palate. Its length is about two, its breadth about one and a half centimetres, while it protruded into the pharyngeal cavity about four millimetres at the point of greatest protrusion. The mucous membrane covering, and that adjacent to the tumor does not differ in any respect from the mucous covering of the remaining portion of the pharyngeal cavity. A point noted almost simultaneous with the discovery of the tumor was that it pulsated, and that this pulsation was synchronous with the action of the heart. A very distinct and high pitch bruit was heard upon application of stethoscope to right side of neck. Pressure upon

[1] Read before the Medical Society of the District of Columbia.

common carotid in the neck caused the tumor to diminish in size, with complete cessation of pulsations. The blood seemed, just beneath the mucous surface, as though at each pulsation of the heart the swelling must rupture. Patient noted pulsation, and stated that the "thumping" was very annoying to her.

The existence of an aneurismal dilatation of a pharyngeal artery is something of unusual interest, and I present the case in order to excite discussion and obtain from the anatomist some idea as to which of the numerous small arterial twigs it might belong. I was at first inclined to believe, from its large size, that it must be from a vessel of some magnitude. What artery of this nature is here distributed? I thought it might be of the internal carotid, the artery having an anomalous distribution; this would require a marked displacement. It could also be one of the branches of the ascending pharyngeal having an unusual size, presenting that anomalous deviation from the type that we occasionally observe in other arteries, and this had undergone an aneurismal change.[2]

NOTE.—While the proof of the above article was passing through my hands, I noted an article entitled "Eight Cases of Large Pulsating Arteries on the Posterior Wall of the Pharynx," by J. W. Farlow, M.D., of Boston.[3] In this article Dr. Farlow calls attention to his having previously reported five cases of the same character.[4] These escaped my notice. The eight cases here reported are in all probability the same, though less marked, as the condition above mentioned; although the histories are so briefly given as to leave some doubt.

MEDICAL PROGRESS.

ADDISON'S DISEASE, WITH CANCER AND TUBERCULOSIS OF THE SUPRARENAL CAPSULES.—FLEINER (*Berl. Klin. Wochenschr.*; *Schmidt's Jahrbucher*) gives the history of a man 44 years of age, with tuberculous heredity, who presented, after exposure to cold in October, 1888, brownish-yellow spots on the back and breast. From the middle of April, 1889, increased weakness, dyspepsia, and impotence, with general darkening of the skin. Upon his reception in the hospital, the skin was of a brown color throughout, the nipples dark brown, and the axillæ and genitals nearly black. In the mucous membrane of the mouth brown spots were to be seen. In the umbilical region was an uneven, hard, immovable tumor, painful on pressure. From the nature of the symptoms, the muscle weakness, dyspepsia, pigmentation, wasting, and the situation of the tumor, in the retro-peritoneal lymphatic glands, a diagnosis of morbus Addisonii was made, the tumor probably involving the suprarenal capsules, especially the left, and the larger ganglion of the abdominal sympathetic. The nature of the growth, whether tuberculous or cancerous, could not be determined. The gastric symptoms increased, the tumor enlarged, and the skin became darker. In the middle of October jaundice occurred, and with it enlargement of the liver. Death took place at the end of the month, about one year from the beginning of the trouble. The post-mortem examination revealed carcinoma of the posterior wall of the stomach, extending to and completely involving the left suprarenal capsule. The right capsule was normal. The right sympathetic was normal from the upper cervical ganglion, to where the splanchnic is given off. From that point the sympathetic as well as the splanchnic were thickened, and lost themselves in the tumor. The right semilunar ganglion was also imbedded in the mass, and could not be examined. The upper ganglion of the left sympathetic was spindle-shaped, having a length of 3.2 cm., and a circumference of 5.5 cm. From this enlargement the cervical sympathetic extended upward, unchanged, to the lower cervical ganglion. Two ganglia just above the left adrenal were enlarged, infiltrated, and changed to hard, irregular tumors. The cœlic plexus was involved in the growth and could not be dissected out. No changes were observed in the brain or spinal cord, with the exception that the ganglion upon the last left dorsal and first lumbar nerves, were larger and more pigmented than those upon the right side.

The above case lends additional weight to the theory that Addison's disease is not alone an affection of the suprarenal capsules, but also of the abdominal sympathetic. Tizzoni was of the opinion that the disturbance in the capsule was caused by changes in the central nervous system, through the medium of the sympathetic. He found by removal of the capsule in rabbits a degeneration of the medulla, especially the floor of the fourth ventricle, and changes in the central canal of the cord, which extended through the white commissure to the grey matter. Degeneration of the peripheral nerves was also found.

The lesions, which were mostly situated in the grey substance and pia, were accompanied by congestions, changes in lymphatic circulation, alterations in the walls of the blood-vessels, and often infiltration of leucocytes containing blood coloring matter. To the present, similar changes have not been found in men, but the observations of Tizzoni should ever be in mind, and the entire sympathetic should be examined in every post-mortem examination of Addison's disease.

To the interesting observation of Fleiner we

[2] For discussion see Society Proceedings.
[3] Boston Med. and Surg. Journal, July 3, 1890.
[4] Boston Med. and Surg. Sournal, March 31, 1887.

may add those of Lancereaux (*Arch. gén. de Méd.*, January, 1890). The first was upon the body of a woman 77 years of age, who presented the typical symptoms of Addison's disease: loss of appetite, weakness, and bronzing of the skin. The post-mortem examination showed enlargement and degeneration of the adrenals, swelling of the left semilunar ganglion, which was partly embedded in the mass surrounding the left adrenal. The trisplanchnic extended to the posterior border of this mass, where a thick fibre extended from the lower horn across the aorta to the lower horn of the right semilunar ganglion. With the microscope tubercular infiltration of the left semilunar ganglion was demonstrated.

A second case presented the bronze skin, with tuberculosis of the right suprarenal capsule, the left not involved. The bronzing of the skin could be referred to the capsular affection; the prolonged vomiting was attributed to changes in the abdominal sympathetic; a contracted kidney with uræmia was also present in this case.

A third case, that of a woman 34 years of age, suffered from severe vomiting and great prostration for eighteen months, and died with all the symptoms of Addison's disease, *excepting the bronzing of the skin*. The post-mortem examination showed tubercular infiltration of the apex of each lung and of the upper portion of the pancreas. Both suprarenal capsules were infiltrated with tubercle, were hard, yellow, and contained a caseous mass surrounded by a greyish connective tissue. Many branches of the solar plexus were softened and covered with small caseous masses. The left semilunar ganglion was degenerated and attached to the adrenal; the right was embedded in a yellow caseous mass, otherwise normal. Under the microscope the ganglion cells were much pigmented, but not degenerated. The left adrenal was completely destroyed by the tubercular process; the right was less involved.

A fourth case, that of a man of 57 years, revealed, post-mortem, the left adrenal, the size of a plum, indurated, the medullary substance yellow and swollen, the cortex slightly changed, and the capsule thickened. Microscopic examination showed a centre infiltrated with subryonal cells, surrounded by a zone of caseous degeneration. The right adrenal was smaller, and likewise infiltrated. The right semilunar ganglion and its branches were apparently normal, but on microscopic examination degeneration of the suprarenal nerves was found.

The two last cases present the typical symptoms of Addison's disease, notwithstanding the failure of skin pigmentation. The prostration, heart weakness, with frequent pulse and accompanying fall of temperature, as well as the digestive disturbances, terminal coma, and the changes in the adrenals, all point to this condition. The bronzing of the skin can not be referred to the changes in the adrenals, but rather to the degree or location of the lesion in the abdominal sympathetic. The explanation why Addison's disease is so frequent in tuberculosis of the adrenals, and seldom in other affections of those organs, is to be found in the tendency that the tubercular process has to affect and extend itself along nerve fibres. Changes in the adrenals have no immediate relation to the development of Addison's disease, but comes from a direct infiltration along the fibres of the abdominal sympathetic.

STERILIZATION OF MILK.—The question as to whether young children are more affected by the number and products of bacteria contained in cow's milk, than by the chemical differences between it and human, is perhaps still *sub judice*. Nevertheless, the researches of Vaughan and others show that dangerous contaminations are frequent, in the commercial handling of this necessary article of food.

EMMA STRUB (*Centralblatt für Bakteriol. und Parasitenkde.*, Nos. 2, 22, and 23, 1890) has added a valuable and laborious study to the literature of pædiatrics;—for this subject will always have its greatest interest in its relation to the feeding of young children. Examinations were made upon milk treated in Soltmann's, Bertling's, Stadtler's, Eglis', and Escherich's apparatus, and also after a method devised by Dr. Gerber. From three to six trials were made with each apparatus, followed by gelatine plate cultures, made by mixing 1 cc. of milk with a definite quantity of gelatine, and pouring it over a glass plate. The number of bacteria were estimated by counting the number of colonies that developed. The results did not vary greatly with the different apparatus, but it was found to be impossible to thoroughly sterilize milk, as on an average from 100 to 200 bacteria were present in each cc., even after prolonged boiling. The bacillus mesentericus vulgatus proved to be the most resistant of all forms usually found in milk; the spores of this germ surviving even fractional sterilization when carried out in Koch's apparatus. This necessitates the application of a temperature so high, and for such a time, that both the quality and taste of the milk is greatly changed. In the ordinary apparatus for sterilizing many pathogenic forms are destroyed, as was demonstrated upon the anthrax bacillus, and the total number of bacteria was greatly lessened. While it is true that all bacteria are not destroyed by boiling in this manner, yet some of the more destructive may be killed, and the protection afforded by sealed jars treated in this way is certainly very great. Notwithstanding the unfavorable results here obtained, in *absolute sterilization*, it may be true that these methods add greatly to the safety of infant feeding.

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SATURDAY, AUGUST 2, 1890.

THE FUTURE OF THE AMERICAN MEDICAL ASSOCIATION.

The development of the American Commonwealth is without a parallel in the history of modern civilization. Within the present century, and largely within the last fifty years, a continent has been reclaimed and its population increased from three, to between sixty and seventy millions of people.

The home-born increase has been immense, and the currents of immigration have centered upon these shores from nearly every quarter of the globe. Of necessity our conditions have been unique. In the development of institutions, the work has everywhere been one of creation and not of revision, and temporary imperfections must be incident to such a growth. In making provision for the absolute and immediate needs of the people, it was seldom indeed that the ideal could be realized. The obvious duty of the hour while striving for the attainment of the ideal was, in the meantime, to utilize the best we could command. Thus in matters of legislation, in public and private improvements, in the founding of all social, literary, educational, religious and professional organizations, these all have required to be wrought out on this virgin soil, with such material as was at command.

But though imperfections and even crudities have been incident to our beginnings, men at home or abroad greatly mistake the genius of our people, and misread their record already made, if they imagine that they are, or will be, satisfied with present attainments. It must be appreciated at home and elsewhere, in any attempt to forecast the future, that the American spirit is intensely aggressive, and that this impelling power guided by intelligence and controlled with wisdom is destined, and that rapidly, to work out grand results. This will be especially true in the domain of medicine. There was a time in our history when highly educated practitioners were few in number, and the needs of the masses of the people were cared for as best they might be by men of moderate attainment. But this was not long to be. In answer to the pressing demands, a hundred medical colleges have been created, and most of these for the time have served a useful purpose. The survival of the fittest will be the future history of these, and of those which are to follow.

It is a fortunate fact, that at the present hour there is an imperative demand in all parts of our country on the part of the medical profession for higher standards of education, and for rigid restrictions upon medical practice. Many of our State legislatures are in full accord, and each year is witness to the progress made in the furtherance of legitimate medicine. Most of our colleges are alive to these demands. Their courses of study are greatly extended, the facilities for clinical teaching, in hospitals and in laboratories, are more and more developed, and the years of college teaching lengthened, until in a number of our foremost schools the opportunities for obtaining a thorough medical education rival those in any other land. We write this not in any boastful spirit, but advisedly. Nor has the profession been remiss in the work of developing medical organizations. In nearly every one of our forty-four States a State Medical Society has been formed. In the older States they date far back in the century; in the newer ones they are yet in their young life. In each of these State societies there is an able representation of medical men. Their organizations are being more and more perfected, their professional work as represented in their proceedings is constantly increasing in value, and each of these States is more and more to feel their influence for good in matters of medical legislation.

We have made this brief reference to our past history, to the status of our medical schools, and

to our medical organizations, in order that we may come to the consideration of the important question of the future of our Medical Association. Its past history has been one in which a wise conservatism has governed. To this we owe our present well-being. We should be as prudent in our counsels, and as wise in future action. But the very nature of our environments is such as to compel us to be progressive. Our present organization and its methods in the past have, beyond question, been the best we could command. But times are changing. The profession is able to command more means; a higher education is everywhere obtaining. The facilities for travel and for intercommunication are marvelously increased. The courtesies of a common brotherhood are seeking expression everywhere. At the seaside, in our mountain resorts, and in our larger cities, the meetings of medical men are without number. This is well; and select coteries and special organizations are well, but they do not, and cannot meet the needs of our seventy thousand physicians.

The great question of the immediate future is as to the possibility of unifying the State Societies, and through them the local organizations which they represent, until, in one grand central organization—THE AMERICAN MEDICAL ASSOCIATION—there shall be a convergence of medical interests and medical influences that shall embrace the continent.

HYDROPHOBIA EPIDEMICS.

The *Medical Record* calls attention to the increase in hydrophobia scares since the establishment of the Pasteur Institute in New York, and pertinently asks if the aggregate suffering in the community is not increased; granting, even, that the lives of the few undoubtedly infected with rabies are saved.

Fear and expectant attention have had much to do with the spread of epidemics, and in no condition are these factors of more importance than in rabies. The frightful character of the developed disease, the extraordinary symptoms popularly accredited to it, and its certain fatality, make this a disorder that the public should hear least about. Heartily in sympathy as we are with every effort to advance knowledge, and with every honest experiment, we cannot disapprove of the methods of PASTEUR, since they have been endorsed by so many eminent in the profession; but we do most earnestly protest against the fanfaronade in the daily papers that has attended the opening of the Pasteur Institute in Chicago. Not for a moment do we question the motives of the gentleman at the head of this enterprise; yet we doubt the propriety of allowing his name and methods to be heralded in the daily papers, in terms but little different from those employed by advertising quacks in the same sheet. All necessary publicity can be secured through the medical journals and the profession, and in the end more accurate results would be reached, for the pseudo-epidemics that cast such discredit upon the statistics of this work would be eliminated.

WHEN JUDGES DIFFER.

We are all familiar, *ad nauseam*, with the much misquoted adage about the differences of opinion among physicians. The adage is generally sneeringly applied to our own profession, but erroneously so since the origin and early history can be proved to have been entirely a theological one. But still another view of the case is put upon the question by an article in the *British Medical Journal* of June 14, which takes the sting out of the sneer, if we allow, for the sake of argument, that the adage is relevant to medicine. The *Journal* says that the Lord Chancellor, Lord Halsbury, at a recent public meeting in London, went so far as to make it a particular merit of the judges, and one of their claims to the public esteem which they so justly enjoy, that they spent nearly half their time in "differing from their learned brethren." Hence it will be possible for us, in the future, to spurn the distasteful accusation by a two-fold parry: first, by showing that the saying never was aimed at medicine at the time when it was first invented; and, second, and even if physicians do have their discrepancies, they cannot be said to spend "nearly half their time" upon their differences, as has been said of a body of logicians—judges of the British Bench—as eminent as the round globe we inhabit can produce, and that, too, said of them *to their credit*. Let us hear no more about the differences of the doctors of medicine, *to their discredit*.

EDITORIAL NOTES.

CORRECTION.—Among the editorial notes, on page 27 of THE JOURNAL for July 5th, it was stated that Dr. T. G. Richardson, one of the ex-presidents of the American Medical Association, had resigned his connection with the Medical Department of Tulane University, at New Orleans, and removed to Washington, D. C. So far as relates to his resignation of the Chair of Surgery in the University, the statement is correct. He resigned on account of continued ill-health, but he still retains his home in New Orleans and a lively interest in the medical institution with which he has been connected so many years.

THE MONTANA MEDICAL ASSOCIATION.—This Association met at Helena on June 5. The following officers were elected for the ensuing year: Dr. J. S. Hammond, of Butte, president; Dr. W. Gunn, of the same place, secretary (re-elected); Drs. G. H. Barber and W. L. Steele, both of Helena, were elected corresponding secretary and treasurer. The next annual meeting will be held at Helena, April 15, 1891.

MEDICAL LEGISLATION IN THE STATE OF NEW YORK.—The text of the new law creating Boards of Medical Examiners, and for further regulating the practice of medicine and surgery within that State, will be found in the present number of THE JOURNAL. It will be seen that the Regents of the University will, of necessity, be largely responsible for its successful operation. We have full confidence that their action will be eminently judicious, and that the most sanguine anticipations of the friends of the bill will be fully realized.

PROTECTION AGAINST CONTAGIOUS DISEASES.—Among other important matters submitted to the International Medical Congress, was that of securing the public against the transmission of contagious diseases. The following is a quotation from Secretary Blaine's letter, just submitted to Congress by the President, on that subject:

> The sanitary officers of the Gulf cities of the United States have hitherto found great difficulty in protecting the public health against contagious diseases brought by shipping from South America, Central America, Mexico and West Indian ports, without restricting the freedom of commerce. At certain seasons of the year the quarantine regulations, which they have been compelled to adopt, have often placed an absolute embargo upon communication with the tropical countries where such diseases originate. The same difficulties have been experienced in a like measure by the neighboring nations, and the attention of sanitary specialists, both in Europe and America, has been for years engaged in the task of devising some remedy.
>
> International sanitary conventions were held at Rio de Janeiro in 1887, and at Lima, Peru, in 1889, and were composed of eminent scientists who gave the subject the closest investigation. At both these conventions regulations were framed for the protection of shipping and of ports exposed to infections, which agree in all their essential provisions. Those of the convention of Rio de Janeiro were adopted by Brazil, Paraguay, Uruguay and the Argentine Republic, and are now enforced in the ports of those nations. The recommendations of the Conference have not been carried into effect. Colombia, Venezuela, and the nations of Central and North America were not represented at either convention, but they are equally interested in securing the results desired, and the International American Congress recommends the acceptance and enforcement by them of the regulations of the Rio de Janeiro Convention, or those adopted at Lima, as the best systems that have yet been devised.

POACHING UPON THEIR PRESERVES.—Not a few physicians residing in New York, Philadelphia and elsewhere, have been in the habit of transferring their business to the sea-side during the summer months. Evidently the doctors of New Jersey have deemed this sort of practice, within the limits of their State, an invasion of States' rights. The legislature of that State has come to their aid, and passed a law, which took effect July 4th, forbidding such practice unless the physician from another State shall have first applied to the State officers, and after formal examination, have received a license therefor. Surgeons of the army, navy, and Marine-Hospital Service, those actually called from other States in consultation, and those called from other States to attend particular cases, are exempted from this requirement.

RESCUED BY AN UNDERTAKER.—The druggist is saved, though the patient is dead. By a mistake of a druggist in Brooklyn recently, an overdose of hyoscyamine was administered to a patient with fatal result. Later, a coroner's inquest was held, but in the meantime, an undertaker had subjected the body of the deceased to an embalming process, which destroyed all traces of the poison. The druggist is still held in bonds of $2,000, but evidently conviction will be impossible. The need of special legislation upon this point is clearly manifest.

THE NEW CROTON AQUEDUCT IN NEW YORK CITY.—The time set for the opening of the new aqueduct was July 15. The tunnel of the aqueduct is over twenty-nine miles long, and has a capacity of three hundred and eighteen millions of gallons per day. The pipe line from 135th St. to the reservoir in Central Park is two and one-third miles in length, with a capacity of two hundred and fifty millions of gallons daily. The value of such a water supply to the City of New York is beyond any possible estimate, and its completion should be a matter for universal congratulation.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK will this year celebrate its fiftieth anniversary. During these fifty years it has graduated nearly six thousand students.

THE PASTEUR INSTITUTE was visited on May 24 by Lord Lytton, and many prominent members of the Anglo-American colony in Paris. Mme. Priestley, wife of Dr. Priestley, presented Pasteur with an album, of noted Englishmen and Americans.

LISTER AS THE GENIUS OF SURGERY.—The new Policlinic in Rome will have its two façades adorned with two bas-reliefs in illustration of the modern genius of medicine: John Baptist Morgagni representing pathological research, and Sir Joseph Lister surgical treatment. Designs for the bas-reliefs in question have been sent in by twenty-one competing sculptors, and are this week on view in the Scuola Vittorino da Feltre, in the Via della Polveriara. The number of designs is thirty-six, several artists having submitted more than one to the "Comitato Aggiudicatrice." The committee, which is composed of an equal representation of fine art and medicine, under the Presidency of Dr. Guido Baccelli, has no easy task before it, as the competitors include the acknowledged masters of sculpture in Italy.—*The Lancet.*

AN ANATOMICAL QUARTO; A REVERSION OF TYPE.—The application of photography to the study of anatomy is an original feature, proposed to be adopted in a two-volume work now in preparation by Dr. George McClellan, of the Philadelphia School of Anatomy. The author's own dissections will be thus reproduced and will be colored by him after nature, the dissections being expressly made for this book. There will be one hundred full-page illustrations, large quarto size. The text will be descriptive of the regional anatomy of the entire body in its relation to the most recent information regarding both surgery and medicine. The first volume will appear about five months hence, the Lippincott Company being the publishers. We had thought that "the age of the quarto" had passed forever, but the extension of photographic work seems destined to bring it back to us. It remains to be seen how well anatomy can be taught by the sun-picture.

REVUE INTERNATIONALE DE BIBLIOGRAPHIE is the title of a new journal published under the direction of Dr. Jules Rouvier, of Beyrouth. It will appear six times each year, and will be a pure index of medical literature, similar to the *Index Medicus*. The arrangement by subjects is apparently simple and effective. The first two numbers contain 593 pages, in which the French and Italian literature are richly represented, while the English and German references are comparatively meagre.

IF a man die, shall he live again? For the third time poor Kemmler is doomed to die. The place designated, as before, is at Auburn, N. Y., and the date is fixed for the week commencing August 4. It yet remains to be determined whether electricity, as in this instance, shall be a means of prolonging life; or whether, at this late date, it shall do its fatal work.

DEATH FROM NITROUS OXIDE.—The first death in Canada under nitrous oxide is reported from Montreal. A man, aged 24, went to the office of a dentist to have a tooth extracted, and requested to have nitrous oxide administered. After assuring himself that the patient was not suffering from heart or lung disease, the dentist administered the gas. No sooner had the tooth been extracted, than the patient gave a gasp and fell over in the chair. He was placed upon the floor and artificial respiration performed, but without restoring animation. The patient was not under the influence of liquor, and five hours had elapsed since last taking food (breakfast). The purity of the nitrous oxide was tested shortly after the accident, by the President of the Dental Association, Dr. Beers, who himself inhaled it from the same inhaler. The verdict of the jury was that the man died from syncope, caused by the administration of the gas, and they exonerated the dentist from blame.—*Med. Record.*

TOPICS OF THE WEEK.

SOUND ADVICE FOR THE PROFESSION.

The following lay sermon to the profession is to be found in the preface of a curious old medical work entitled *Vade Mecum or a Companion for a Chirurgion fitted for times of peace and war, by Thomas Brugis, Doctor of Physick. London. Printed by T. H. for Thomas Williams, at the sign of the Bible in Little Britain, 1652.*

"Presume not too much on thy own wisdom and vertue, lest thou beest lifted up with a vain confidence, and puffed up with pride, for when men are carried with an inordinate and blind love for themselves, they are soon persuaded that there is nothing in them worthy to be dispised, yea, they think that their ignorance is wisdom, insomuch that knowing nothing, they suppose they know all things, and having no dexterity to perform any one commendable work, they presume very inconsiderately to set their hand to every great matter; but the more care and diligence they bestow, being let with a desire to shew great skill, and thinking to win honour and renown, so much the more they discover their ignorance and blockishnesse, purchasing to themselves shame and infamy: For a man to know himself to be ignorant, is the best science and necessary for men, that without it they cannot be truly skillful; for as I said before, the ignorant person that knoweth not himself to be such an one, but supposeth he knoweth that which he doth not, indeed is as unteachable as a beast can be." . . .

"Socrates, who by the oracle was declared to be the wisest man then living, was greatly commended by the ancients because he said he knew but one thing, viz., That he was ignorant and knew nothing.

"Now a word or two to the patient: Thou seest in every village a sort of Mountebanks, Empericks, Quacksalvers, Paracelsians, (as they call themselves), Wizards, Alcumists, Poor vicars, cast apothecaries, and physitians men. Barbers and Good wives that professe great skill go with the name of Doctor, which title perhaps they bought at some beyond sea University, where they bestow this degree upon such people for their money; the phrase they use is '*Accipiamus pecuniam, demittamus asinum,*' and so with the title of Doctor Asse; away he flies into all countries possessing the people with stories and false tales, and leads them to the destruction of their bodies, if not of souls too, that an able Physitian or Chyrurgion, who hath undergone a great deal of hardship to benefit himself in his art can scarcely maintain himself, or know who shall be his patients."—*N. Y. Med. Journal.*

CHOLERA INTELLIGENCE.

The London *Lancet* has the following: The general tenor of the news from Spain is indicative of a subsidence of the cholera epidemic. At Gaudia there were between June 15, and July 1, 144 cases and thirty-six deaths, and during the next two days ten cases and five deaths were reported from that place. The other towns and villages specified as having suffered since our last issue, are Alcira, Magenta, Cullera, Fortaleny, Rolova, and one attack is said to have occurred in Valencia itself. The official cholera bulletin announced a total of twenty-nine cases and eighteen deaths on July 5, and twenty-one cases with thirteen deaths on July 6; and on July 7, there was a general statement to the effect that there had been some increase of the disease in the province of Valencia, Gaudia and Rolova being specially named as affected. But whilst news has been thus irregular, a somewhat ominous telegram has been received to the effect that the civil authorities have endeavored to deceive the Spanish Government as to the real state of affairs in their several districts, and that cholera is much more extensively prevalent in the province of Valencia than the published returns indicate. Under these circumstances, it is evident that it would be impossible at the present moment to give any trustworthy forecast as to the future of cholera in Spain. But it is satisfactory to learn that there had been no spread of the disease beyond the limits of that country, and especially that no single case has occurred in France. On the Franco-Spanish frontier exceptional measures of precaution are taken, and these precautions are of a more rational sort than any ever yet resorted to in Southern Europe. But in some respects old and useless customs are maintained; thus, almost at the last moment we read of the disinfection of letters and mails. Whether this process is anything more than the time-honored custom of transfixing the letters and newspapers with a knife-like instrument, and fumigating their outsides until they smell very disagreeably, we are as yet unable to say.

THE FRENCH AND THE BERLIN CONFERENCE.

It must be a matter of sincere regret that many of our French *confrères* are advising their countrymen to abstain from taking any part in the proceedings of the International Congress. It may be remembered that when this policy was first mooted many distinguished French physicians and surgeons declined to give in their adhesion to it. One of the foremost to urge that science was above politics was M. Huchard, who in some eloquent and trenchant phrases declared that French *savants* ought to attend the Congress. Unhappily, he is no longer of this opinion, for in the journal he edits with so much ability (*Rev. Gén. de Clin. et de Thérap.*) he has recently recanted his former declaration, on the ground that in 1871 Prof. Virchow, in a paper published in the *Archiv*, cited the opinion of Dr. Stark that the French people were, as to their general mental state, not far removed from paralytic idiocy, or *folie raisonnante*. Dr. Huchard, imputing this expression of opinion to Prof. Virchow himself, declares that it is impossible for any self-respecting Frenchman to attend a Congress presided over by him. He concludes by pointing out that almost simultaneously with the Berlin meeting, there is to be held at Limoges the annual meeting of the French Association for the Advancement of Science, and he for one will preferably take part in that meeting. To this Dr. Ewald, the editor of the *Berliner Klin. Wochenschrift* (July 7) replies in a dignified manner, pointing out that the obnoxious phrase complained of was not Prof. Virchow's own, and that, indeed, he did not endorse it; whilst looking to the diverse mental constitution of the

two nations, it is quite reasonable for the one to regard as morbid what is normal to the other. It is, indeed, a misfortune to science that such misunderstandings should be suffered to arise, and we may express the hope that even at this eleventh hour good sense will prevail. We are sure that few of the guests for whom Berlin is making such lavish preparation will be more welcome than those which come from the other side of the Rhine.

THE SPINAL CORD IN INFLUENZA.

At a meeting of the Royal Academy of Medicine of Turin on May 23d, Professor P. Foà described the lesions which he had found in the spinal cord of a woman who died of influenza. The patient, who was "of middle age," had suffered from the usual symptoms, and the attack was followed by extremely acute bronchial catarrh, and later on by bronchopneumonia on one side, with hepatization of the other lung. Sections of the spinal cord showed intense hyperæmia, its substance being dotted with minute red points. On microscopic examination, numerous hæmorrhagic foci were seen in all the divisions of the cord, notably in the upper two-thirds of the dorsal, and the upper portion of the cervical, region. There was recent infiltration of red corpuscles among the nervous elements, which were slightly separated and compressed, but not visibly altered in structure. Some of the vessels were obliterated, and it was in the neighborhood of these that the hæmorrhages had taken place. Degenerative changes were also present in places, the axis cylinders being hypertrophied to five or six times their ordinary size, and the nerve fibres degenerated. These degenerative foci were, as a rule, independent of the hæmorrhagic patches, but in the highest part of the cord the two lesions were sometimes found together. The hæmorrhagic foci were chiefly situated in the posterior columns, almost always at their periphery; the degenerative foci occurred mostly in the lateral columns. Neither the grey matter nor the posterior roots showed the least alteration. Dr. Foà thinks that the lesions were due to occlusion of vessels, giving rise in some places to hæmorrhage, and in others to alterations in the nutrition of the nerve fibres. He thinks it probable that the occlusion was caused by an accumulation of microorganisms, but admits that he was unable to verify this conjecture. Examination of the brain was not permitted.—*British Medical Journal.*

THE FLORENTINE SCHOOL.

This important center of medical instruction keeps pace with the progress of science and teaching, in a manner worthy of its honorable traditions. Like other institutions of Florence, it owes much to the public spirit of leading citizens, one of whom, the Commendatore Egisto Fabbro has just endowed it with an amphitheatre for clinical surgery which is, in some respects, an improvement on any construction of the kind in Europe. Accommodating comfortably 180 students, it admits of their seeing every detail of the operator's work without rising or moving from their seats. The donor visited all the medical schools of the European universities with a view to making the amphitheatre as perfect as possible; and, having drawn plans of the new features it was to embody, he entrusted the whole to the able architect, Professor Roster, who, with some practical modification, has carried them out with skill and effect. To appreciate the meritorious details of the construction, it must be visited on days when the more difficult operations are in progress, and then its advantages in point of light, ventilation, and general commodiousness will be apparent. All the flooring and the walls to some seven feet from the ground are of crystal, in large thick plates, so as to minimize all danger of infection; and the halls annexed to the ampitheatre, for the accommodation of the patients on their way to or from operations, for baths, for the *armamentarium chirurgicum*, and for the clinical *personnel*, are well appointed in every way for their purpose. Those of the profession who may visit Florence on an autumnal tour will find the Arcispedale di S. Maria Nuova made doubly attractive by this ingenious and effective adjunct to its clinical architecture.—*Lancet.*

THE LIQUOR TRAFFIC AND NATIVE RACES.

It is most gratifying to note that the King of the Belgians has given an audience to Dr. Hannay, of the Congregational Union, and Mr. John McKenzie, late Assistant Commissioner in Bechuanaland, on this subject, in which he expressed hearty sympathy with the views of those who protest against native races being demoralized and destroyed by the traffic in intoxicating drinks, and a confident hope that the conference would adopt some effective measures for the restriction of this traffic. If European nations are not strong enough to impose such restraints on their trade members in those distant regions, so much the more pity.—*Lancet.*

KISSING THE BOOK.

The danger of kissing a greasy book, so often tendered in police and law courts to a witness about to be sworn, is at last appreciated by some officials aud in some quarters. We see it stated that when the Duke of Fife appeared lately at Stratford in a prosecution, the Testament on which he took the oath was enveloped in some clean white paper for his use—a precaution which might with advantage be more generally adopted. Why should not the formula and method of taking the oath in English courts of justice be altered and adopted, possibly in imitation of the method adopted in Scotland, which is that of raising the hand in lieu of kissing the book?—*British Med. Journal.*

RESTRICTIONS IN ITALY.

The Italian Government has ordered that only medical men shall henceforth be entitled to practice dentistry and bloodletting—an order which will interfere with the practice of a large number of quacks, and which is therefore looked upon with satisfaction in medical circles.

PRACTICAL NOTES.

THREEFOLD USE OF ANTISEPSIN.

Paramonobromacetanilide, or antisepsin, is one of the latest synthetic substances which have the triple properties of analgesic, antithermic and disinfectant action. Dr. Cattini is reported in the *Lancet*, June 7, as having used the drug in all three relations. He regards it as similar to acetanilide in anti-pyretic power; its use in fever and in pneumonia with elevated temperature showed an active control over the development of body-heat. Its use as an anti-neuralgic was uneven, but frequently yielded good results; it has occasionally been followed by cyanosis and oppression of breathing, which, when excessive, have best been combatted by oxygen inhalations. As an application in hæmorrhoids and other anal affections, good results have followed the use of antiseptic suppositories. There have been encouraging results after its use upon wounds and ulcers. It forms an impermeable but transparent covering, beneath which the processes of repair and cicatrization have gone forward with surprising facility. The application is entirely free from odor. The dose of antiseptic by the mouth is, for adults, four or five grains; repetition should be made with caution. The second dose of five grains, taken after an interval of eight hours, has been the occasion of alarming cynotic and suffocative symptoms.

BORAX IN EPILEPSY.

At the meeting of the Cardiff Medical Society, held April 3, 1890, Dr. Stewart, assistant medical officer at the Glamorgan County Asylum, related cases illustrating the value of borax in epilepsy. 1. A girl admitted, aged 13, had epileptic seizure dating from birth, occuring in numbers varying from two to twelve per day, and chiefly by night. She had been under treatment repeatedly, but without benefit. Without treatment the fits during the first week were twenty-six in number; under borax they were reduced to twenty-four in the second and eight in the third week. After an interval free from fits of sixteen days, four occurred on two successive nights; then, after another interval of nine days, a single fit took place, and since then there has been no recurrence of fits—that is, a clear interval of over a month. 2. This patient began to suffer from nocturnal epilepsy at 18, and came under treatment five years afterwards. The case was complicated by serious cardiac disease and stenosis of the mitral orifice. Without treatment the average monthly number of fits were one hundred and one, and under borax this was reduced to twenty in the first month, seven in the second, one in the third, five in the fourth, none in the fifth, and one in the sixth. 3. This patient had whooping-cough at 7, followed by hemiphlegia, imbecility and epilepsy. The average number of fits a week, when no special treatment was employed, was 3.5, and bromide failed to effect any reduction; after two and a half years' treatment the weekly average had risen to sixteen. Under borax the weekly average during the first month was reduced to 15.5, and during the second month to 11.5. The diminution took place chiefly in the nocturnal seizures. In 4, 5 and 7, in which the fits occurred both by day and by night, bromide exercised a decided influence upon the diurnal seizures, leaving the nocturnal practically unaltered, and in these benefit was experienced from the combined use of bromide and borax, three doses of the former during the day and one single dose of the latter at bedtime. 6. This patient, epileptic and imbecilic from birth, came under treatment at 35. The fits were of the nocturnal type, were uninfluenced by bromide, and were slightly dimished by borax. Dr. Stewart concluded that borax exercised a peculiar influence over nocturnal seizures, and that it was, in cases where the fits were entirely of that kind, that the greatest good might be expected; that bromide, on the other hand, exerted a more powerful influence over diurnal seizures, and that, in cases characterized by both day and night fits, a combination of these two remedies would be productive of most benefit.—*British Medical Journal*, April 19, 1890.

COCAINE PENCILS.

A useful expedient for some of the minor ills of the cutaneous surface is the cocaine pencil. According to the *British Medical Journal*, this can be made by the addition of two per cent. of cocaine to the ordinary cocoa butter pencil, to be applied by rubbing over the irritated spot. To those who are susceptible to insect bites, or chafing, or other irritations of the skin, this remedy commonly affords almost instant relief.

BROMIDE OF GOLD IN EPILEPSY.

The monobromide of gold has been employed in Russia, Germany and Belgium as a nervine and anti-epileptic. Dr. Goubart, of Brussels, has reported that, in a certain proportion of cases, it has been better borne than any of the bromides. According to him the initial dose for adults should be one-eighth of a grain to be increased gradually to one-fifth; for children from one twentieth to one tenth of a grain. The drug is a yellowish gray friable mass, insoluble in water.

CARBOLIZED OIL IN SCABIES.

Dr. Tresilian, (*British Medical Journal*) has had excellent results from the use of carbolized oil, 1 in 15 of olive oil, as a local application in scabies.

SOCIETY PROCEEDINGS.

Medical Society of the District of Columbia.

Stated Meeting, October 9, 1889.

THE PRESIDENT, DR. CHARLES E. HAGNER, IN THE CHAIR.

DR. R. T. EDES presented a specimen of

ANEURISM OF AORTA, RUPTURING INTO PLEURA.

The specimen is an aneurismal sac 7 inches long and about 3 in greatest diameter, involving the lower part of the thoracic and upper part of abdominal aorta. It ruptured into the right pleura, which was full of blood. There were adhesions to the lungs and diaphragm. The aorta was markedly atheromatous, but there was not much calcareous deposit. The patient was a white man aged about 55, who was admitted to Garfield Hospital, this city, and died soon afterwards, October 5, 1889. No further history.

DR. C. W. RICHARDSON reported a case of

ANEURISM OF THE POST-PHARYNGEAL WALL.

(See page 180.)

DR. HAMILTON: The case of post-pharyngeal aneurism might be treated by pressure upon both carotids; the electric needle might be used, but ligation would be very difficult.

DR. FRIEDRICH asked Dr. Hamilton if he had ever used fine wire.

DR. HAMILTON: Used potassium iodide and rest in the treatment of large aneurisms. Dr. T. F. Wood, of Wilmington, N. C., had diagnosticated aneurism of the aorta in himself, and the diagnosis was confirmed by eminent specialists. He resorted to the rest treatment, virtually retiring from practice, and almost recovered. In a patient in the Marine-Hospital Service the post-mortem showed a blood clot in the aneurismal sac. This man had taken 30 grains of potassium iodide three times daily for three months. He died of some pulmonary affection, and the contents of the sac were found consolidated. Dr. Hamilton was not aware that potassium iodide had been given in small aneurisms. He thought compression advisable where practicable.

DR. BERMANN would be more interested if he could see the case, as the drawing was not sufficient. It was certainly unique. Electrolysis is most desirable in such cases.

DR. SELLHAUSEN thought ligation of the ascending pharyngeal artery might be tried in Dr. Richardson's case.

THE PRESIDENT asked Dr. Richardson if pressure of the carotids would stop the pulsation.

DR. RICHARDSON replied that it would.

DR. STOWELL (by invitation) thought that the best treatment in aneurism would be to wait for developments. Potassium iodide in large doses might prove beneficial, and pressure might be tried.

DR. J. FORD THOMPSON had seen the patient of which the pathological condition was well shown by the drawing. He considered it an aneurism of the internal carotid. It is an unusual case, and is remarkable because it has not grown more rapidly.

DR. D. S. LAMB related a case of

CANCER OF STOMACH, CYST OF KIDNEY, PLEURITIC PLATE.

Harriet S., mulatto, age about 65. Tumor in abdomen appeared in October, 1888, but she had been complaining for some months previously. She had pain, and, as the disease progressed, repeated vomiting, sometimes "coffee ground." She steadily emaciated, and finally died August 25, 1889. Was attended by Dr. Mary Parsons, and Dr. J. Ford Thompson saw her in consultation, in view of a possible operation.

The post-mortem examination showed colloid cancer of almost the entire mucous membrane of the stomach, especially thick at the pylorus, where there was almost complete obstruction. The disease had involved the walls to the peritoneum and then spread, so that the under side of the diaphragm and upper surface of the liver showed patches; the omentum contained similar deposits. The lumbar glands were large and cancerous. In addition to these appearances there were several others of interest not connected with the cancer. The left kidney showed a large single cyst, 4x3x2.5 inches in size, for which there is no clinical history. The right kidney was fatty. There were firm old pleuritic adhesions on both sides, and in those of the right side a large calcareous plate. The spleen and internal genitals were atrophied.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Commencement Exercises of the College of Physicians and Surgeons — Columbia College—New York County Medical Association—Fifth District Branch of the New York State Medical Association —Annual Outing of the Jenkins Medical Society —The Syms Bequest to the Roosevelt Hospital—Miscellaneous Gleanings.

This year the Commencement of the College of Physicians and Surgeons, which, it will be remembered, is the Medical Department of Columbia College, was held for the first time in connection with the various other departments of this University; Mr. Seth Low, the new President of Columbia, having determined to inaugurate this new departure. The Commencement exercises were held at the Metropolitan Opera House, in the presence of a large and brilliant audience,

and a large number of degrees were conferred upon the graduates of the various schools. The Law School, which is one of the largest and best in the country, was not represented on this occasion, however, for the reason that the lengthening of the course of study in this department from two to three years left the school this year, for the first time since 1860, without a graduating class. The graduating class of the College of Physicians and Surgeons was unusually large this year, numbering nearly two hundred, and they presented a very imposing appearance in their Oxford caps and gowns; another innovation introduced at this Commencement.

The University Council of Columbia College, at its last meeting, determined to modify the course of study in the senior year of the Academic Department in such a way that those students who desire to study a profession may commence their professional studies in the senior year, and thus save one year in preparatory work. By the action thus taken, Columbia offers to undergraduate students the advantages of a three years' course, such as the authorities of Harvard are considering the advisability of adopting, without in any way impairing the value of the degree of Bachelor of Arts. The privilege of thus taking two years in one, as it were, will not allow the granting of the Bachelor degree until the end of the fourth year, as heretofore; but will save a year to the student who proposes to take a professional course.

At the last meeting for the season of the County Medical Association, Dr. Joseph D. Bryant presented the specimens and read the history of a very interesting case of rupture of a femoral aneurism, with extravasation of blood. The common iliac was ligated, but death resulted. In this patient was found a rare anomaly. The common iliac bifurcated to the right of the median line, and this led to the mistaking, at the time of the operation, of the left iliac for the right iliac artery. On the same occasion, Dr. T. M. Bull read a paper on the "Prescription of Exercise," in which he referred to the various purposes for which exercise might be advised, and urged that the kind and amount of exercise required in any given case should be prescribed more specifically than was ordinarily done by the profession. One might just as well direct a patient simply to take medicine, he said, as to order him to take exercise without specific directions.

A matter has been taken up here by the Ladies' Health Protective Association which has recently received a good deal of attention in Philadelphia, viz.: the common habit of expectorating in public vehicles; and it is to be hoped that their efforts will be successful in abating, to some extent at least, a nuisance so disgusting and at the same time so fraught with danger to health. Dr. Samuel G. Dixon, of Philadelphia, has devised an ingenious suction apparatus, by means of which a portion of any desired atmosphere can be obtained in a cylinder, in which glasses smeared with glycerine are placed for the purpose of securing some of the particles floating in such atmosphere; and by means of this apparatus, which he terms a germ collector, he has repeatedly demonstrated the presence of tubercle bacilli in air taken from horse-cars on the floors of which passengers had expectorated. While it is, perhaps, too much to hope that the common practice of expectoration can be checked to any very great degree, it is possible that, as a result of the present agitation, the railroad companies may be induced to disinfect their cars from time to time, and the danger arising from dried tubercular sputa thus be somewhat diminished.

The eighth special meeting of the Fifth District Branch of the New York State Medical Association was a very enjoyable affair. It was held July 22, at the historic old Court House at Kingston on the Hudson, where the constitution of the State of New York was drawn up and adopted, and among the scientific papers presented were the following: "A Practical Study of the Region of the Spine, and Pathological Changes occasioned in it by Traumatisms," by Dr. Thomas H. Manley; "A Strange Case," by Dr. J. G. Porteous; "Report of a Case of Acute Purulent Pleurisy. Pleurotomy, followed by rapid Recovery," by Dr. J. D. Sullivan. As on the last occasion, now several years ago, when the Fifth District Branch met at Kingston, the programme included a delightful excursion to the neighboring Catskill Mountains, and the successful issue of the undertaking was due to the indefatigable exertions of the Chairman of the Committee of Arrangements, Dr. Henry Van Hoevenberg, of Kingston, who has also been one of the most useful members of the Executive Committee of the Branch ever since its organization. Upon the adjournment of the meeting, the Fellows of the Association and a party of friends, including a number of ladies, took the Ulster and Delaware Railroad, which runs through the southern portion of the Catskill range, and after a charming ride of some thirty miles, with inspiring views of the mountains on either hand, changed at Phœnicia to the picturesque Stony Clove road. The latter climbs, at a very steep grade, up through the great Clove into the heart of the Catskills, and the huge mountains close in nearer and nearer until, just before it enters the open plateau, the road passes through a narrow defile, with stupendous rocky heights towering perpendicularly for many hundreds of feet on both the right and the left. The view at this point is of surpassing grandeur, and for such a short time each day does the sunshine penetrate the defile, that ice is found the year round, beneath the rocks by the roadside. The Kaaterskill terminus of the railroad is on the shore of one of

the beautiful Catskill Mountain lakes, and a drive of half a mile or so through the forest brought the party to the great Kaaterskill Hotel, the largest mountain hotel in the world, situated at an altitude of nearly 3,000 feet above the sea level. The view from it of the great mountains near at hand, and the wide-extended valley of the Hudson beyond, seen for nearly a hundred miles, is one never to be forgotten, and as the shades of evening softly descended, a matchless charm was added to the inspiring scene. With the brilliant electric lights about it, there is always moonlight at the Kaaterskill, but on this occasion, there was also a genuine young moon to grace the western sky, while in this pure mountain air the glorious evening star, the fiery Mars, and later the rising Jupiter, shone with a brilliancy unknown in the lower world. The next morning the excursionists spent in exploring the many points of interest in the beautiful Kaaterskill Park and the picturesque regions about it, and, after fortifying the inner man with a substantial repast, again took the train, delighted with their charming visit to the enchanted land of Rip Van Winkle.

In this connection, it is also pleasant to record the recent annual outing of the Jenkins Medical Society, in response to the hospitable invitation of Dr. E. F. Brush, of Mount Vernon. This organization was founded a number of years ago, in Yonkers, on the Hudson, and for a time was called the Yonkers Medical Society. Afterwards, however, a number of physicians in the town of Mount Vernon, also in Westchester County, but situated near Long Island Sound, were included in its membership; and after the death of the late Dr. J. Foster Jenkins, the most eminent physician of Yonkers, it was decided that it should bear his name in honor of his memory. On the occasion referred to, Dr. Brush invited the Society, with a few guests from New York, to a day of festivity on the beautiful dairy farm where is manufactured his delicious and renowned Kumiss. This farm is situated in a most retired and picturesque region, and though less than twenty miles from the centre of the metropolis, one enjoying the *dolce far niente* of its rustic delights might suppose himself far away in the wilds of Arcadia.

In description it would be vain to attempt to do the justice that our appetites did to that jolly clambake in the woods, on the bank of a crystal-flowing stream stocked with trout, where the table, in lieu of a cloth, was spread with fragrant clover, reposing amongst which were the most luscious of strawberries and cherries. The great event of the day, after the collation, was a grand base-ball match, between the Qui-nines, of Mount Vernon, and the Strych-nines, of Yonkers. When it is stated that while only four and a half innings were indulged in, the score stood at 29 for the former and 28 for the latter, some idea of the strength and brilliancy of the play may be formed. There was naturally the wildest enthusiasm among the Mount Vernonites when this result was announced, and a silver ball provided by Dr. Brush was afterwards presented by the President of the Society to the victors, the record of whose achievement has since been duly inscribed upon it. Among the other sports of the day were a shooting match with a fine Winchester rifle belonging to Dr. Carlysle, which was won by Dr. Miles, of Yonkers, and a foot race, won by Dr. Pyne, also of Yonkers; and to both of these successful competitors silver prizes, generously furnished by Dr. Brush, were presented. The day was a perfect one throughout for such an outing, and it was pleasantly brought to a close by a festive supper, and a delightful homeward drive in the gloaming.

It is gratifying to learn that the proceedings for a revocation of the will of the late Mr. Syms, who left $350,000 to build and equip the finest operating theatre in the world at Roosevelt Hospital, have been discontinued, so that there is now no obstacle to the carrying out of the provisions of the bequest. Soon after the will was probated, a year ago, the authorities of the hospital, in order to secure the completion of the work at as early a date as possible, began excavating for the foundation of the amphitheatre on their own responsibility; but when, early in the spring, a sister of Mr. Syms began proceedings for revoking the will, on the ground that her brother was of unsound mind and under undue influence when he made it, the work was naturally suspended.

In the early part of July the usual summer corps of extra physicians for house to house visitation among the tenement house population, were appointed and went on duty. It is their special province to look out and care for all sick children without medical attendance, and also to report any sanitary defects met with in the tenements visited. There can be no question that the summer mortality of the city is materially lessened by the labors of this extra corps of sanitary inspectors, aided by the good effects resulting from the excursions of the St. John's Guild Floating Hospital and other charities providing fresh air outings for the children of the poor; but notwithstanding all these agencies the death-rate is always high in the warm weather, especially among infants and young children, on account of the aggravation of the unhealthy conditions so generally surrounding the tenement-house population which a high temperature is sure to cause. Thus, in the week ending July 5 the number of deaths reported in the city was 1,010, an increase of 135 over the preceding week, and representing an annual death-rate of 32.29 per 1,000 in an estimated population of 1,631,848. Of these 1,010 deaths, 746 occurred in tenement houses, and 359 were from diarrhœal disease, 326 of the latter being in children under 5 years of

age. In the week ending July 12, 1,157 deaths were reported, representing an annual death-rate of 39.98; 841 deaths were in tenement houses, and 697 among children under 5. In the week ending July 19, during which the average temperature was lower than in the preceding week, there were 941 deaths, representing an annual death-rate of 30.05. The effects of the continued warm weather were beginning to tell still more upon the children, however, and the number of deaths among those under 5 years of age was 538, more than 200 more than in the week ending July 5, when the total number of deaths in the city was larger than during this week.

The third death from hydrophobia ever reported at Bellevue Hospital recently took place at that institution. The patient was a young French-Canadian residing on Long Island, and soon after the symptoms of hydrophobia developed, he was brought to this city with the idea of placing him under the care of Dr. Gibier at the Pasteur Institute. By the time he reached New York, however, the disease was so far advanced that it was deemed best to take him at once to Bellevue. Here he was visited by Dr. Gibier, who naturally decided that it was entirely too late to attempt to practice any antirabic inoculations, and in a day or two he died with the usual symptoms of the disease. A careful autopsy was made by Dr. Biggs and other Bellevue pathologists. P. B. P.

STATE MEDICINE.

The New Medical Examiners Law.

The following is the text of the Bill approved June 5, 1890, relating to the licensing of practitioners of medicine in the State of New York:

AN ACT TO ESTABLISH BOARDS OF MEDICAL EXAMINERS OF THE STATE OF NEW YORK FOR THE EXAMINATION AND LICENSING OF PRACTITIONERS OF MEDICINE AND SURGERY; AND TO FURTHER REGULATE THE PRACTICE OF MEDICINE AND SURGERY.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. From and after the first day of September, eighteen hundred and ninety-one, there shall be and continue to be three separate boards of Medical examiners for the State of New York, one representing the Medical Society of the State of New York, one representing the Homœopathic Medical Society of the State of New York, and one representing the Electic Medical Society of the State of New York. Each board shall consist of seven members, and each of said members shall serve for a term of three years, from the first day of September next after his appointment, with the exception of those first appointed, who shall serve as follows, viz.: Two of each board for one year, two of each board for two years, and three of each board for three years from the first day of September, eighteen hundred and ninety-one. The power of appointment shall vest in the Board of Regents of the University of the State of New York, which shall appoint the members of said boards of examiners respectively from lists of nominees to be submitted by each of the said three medical societies, the number of nominees by each of said societies to equal or exceed twice the number of appointments so to be made from each of said societies. Each of said nominees shall be nominated by a majority vote at the annual meetings of the society with which said nominee may be in affiliation, and the names of persons so nominated shall be transmitted before the first day of July, eighteen hundred and ninety-one, to the said Board of Regents, under the seal of and signed by the president and secretary of the society so nominating. From these lists of nominees, respectively, said Board of Regents shall, prior to or during the month of July, eighteen hundred and ninety-one, appoint three separate boards of examiners, each board to be composed exclusively of members of the same medical society. In case of failure of any or all of said medical societies to submit nominees as aforesaid, said Board of Regents shall, prior to or during the month of July, eighteen hundred and ninety-one, appoint members in good standing of the corresponding society or societies entitled to nominate, without other restriction. Each one of said appointees, prior to appointment, shall furnish evidence of having received the degree of doctor of medicine in course, from some legally incorporated medical college authorized to confer the same, and shall certify to said Board of Regents to having practiced medicine or surgery under the laws of this State for a period of not less than five years immediately prior to such appointment. The said Board of Regents shall fill vacancies by death or otherwise, for unexpired terms of said examiners from the respective lists of nominees submitted by the said medical societies; and may remove any member of either of said boards for continued neglect of the duties required by this act, or on recommendation of the medical society of which said members may be in affiliation for unprofessional or dishonorable conduct. The Board of Regents shall, in their first appointments, designate the number of years for which each appointee shall serve. The appointments of successors to those members whose terms of office will expire on the first day of September of each year, shall be made by the Regents during or before the month of July of such year, upon the same conditions and requirements as hereinbefore specified with reference to

the appointment of the three separate examining boards, each to be composed exclusively of members of the same medical school and society as are hereinbefore provided.

SEC. 2. Said boards shall be known by the name and style of Boards of Medical Examiners of the State of New York. Every person who shall be appointed to serve on either of said boards shall receive a certificate of appointment from the Regents of the University; and within thirty days after receiving such certificate shall take, subscribe and file in the office of the Secretary of State the oath prescribed by the twelfth article of the constitution of this State. Each of said boards shall be authorized to take testimony concerning all matters within its jurisdiction, and the presiding officer, for the time being of either of said boards, or of any of the committees thereof, may issue subpenas and administer oaths to witnesses. Each of said boards of examiners shall make and adopt all necessary rules, regulations and by-laws not inconsistent with the constitution and laws of this State or of the United States, whereby to perform the duties and transact the business required under the provisions of this Act, said rules, regulations and by-laws to be subject to the approval of said Regents.

SEC. 3. From the income provided in this Act, the Regents may pay, not to exceed said income, all proper expenses incurred by its provisions; and if any surplus above said expenses shall remain at the end of any year, it shall be apportioned by said Regents among said examiners pro rata, according to the number of candidates examined by each.

SEC. 4. The first meeting of each of the examining boards respectively shall be held pursuant to a call issued by the secretary of the Board of Regents, within two months from the first day of September, eighteen hundred and ninety-one, suitable notice in the usual form being given to each of the members thereof, specifying the time and place of meeting. At the first meeting of each of the boards respectively, an organization shall be effected by the election, from their own membership, of a president and secretary. For the purpose of examining applicants for license, each of said boards of medical examiners shall hold one or more stated or special meetings in each year, pursuant to a call of the Board of Regents, due notice of which shall be made public, at such times and places as may be determined by the Board of Regents; but each examination shall be under the supervision of an examiner appointed by the Board of Regents, and who shall not be a member of any board of medical examiners. At said stated or special meetings a majority of the members of a board shall constitute a quorum thereof, but the examination may be conducted by a committee of one or more members of the board of examiners, duly authorized by such board.

SEC. 5. The several boards of medical examiners shall submit to the Board of Regents lists of examination questions for thorough examinations in anatomy, physiology and hygiene, chemistry, surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica; from the lists of questions so submitted, the Board of Regents shall select the questions for each examination, and present the same to the candidates at each examination by an examiner appointed therefor by the Board of Regents, and such questions for each examination shall be so selected as to require the same standard of excellence from all candidates, except that in the department of therapeutics, practice and materia medica, the questions shall be in harmony with the tenets of the school selected by the candidate.

SEC. 6. Said examinations shall be conducted in writing, in accordance with the rules and regulations prescribed by the Board of Regents, and shall embrace the subjects named in section five of this Act. At the close of said examination, the examiner appointed by the Board of Regents having supervision thereof, shall forthwith deliver to the boards of medical examiners having charge of such examination, or to their duly authorized committee, the question submitted to and the answers of each applicant, and such boards of medical examiners, without unnecessary delay, shall transmit to the Regents of the University an official report, signed by the president, secretary and each acting member of said board of examiners, stating the examination average of each candidate in each branch, the general average, and the result of the examination, whether successful or unsuccessful. Said report shall embrace all the examination papers, questions and answers thereto. All the examination papers so returned shall be kept for reference and inspection among the public records of the University.

SEC. 7. On receiving from either of said boards of medical examiners such official report of the examination of any applicant for license, the said Regents shall issue to every applicant who shall have been returned as having successfully passed said examination, and who shall in their judgment be duly qualified therefor, a license to practice medicine and surgery in the State of New York. The Board of Regents shall require the same standard of qualifications from all candidates, except in the department of therapeutics, practice and materia medica, in which the standard shall be determined by each of the boards of medical examiners respectively. Every license to practice medicine or surgery, issued pursuant to this Act, shall be subscribed by the chancellor and secretary of the University of the State of New York, by each medical examiner who reported the licentiate as having success-

fully passed the examinations, and also by those of the Regents who examined and approved the credentials of said licentiate upon the application for examination. It shall also have affixed to it, by the person authorized to affix the same, the seal of said University. Every such license shall be substantially in the following form:

"The Regents of the University of the State of New York. To all whom it may concern, greeting:

Be it known that A. B., on the . . . day of A. D. . . having offered to us satisfactory proof that . . . was more than twenty-one years of age, and had received proper preliminary education; that . . . had attended three full courses of medical instruction, the last course at . . . . . in . . . . . in the years of . . , and had received from the . . of . . . . the degree of doctor of medicine; we thereupon gave a written order for the examination of said A. B. before one of the boards of medical examiners of the State of New York; that the said A. B. was fully examined before said board and found proficient and qualified to practice medicine and surgery by the examiners, whose signatures are hereunto attached. We, therefore, have granted to said A. B. this our license to practice medicine and surgery in the State of New York as a physician and surgeon, and have caused the names of the chancellor and secretary of our Board of Regents and said examiners to be subscribed, and the seal of the University to be affixed hereto, and have also caused this license to be recorded in book . . . of medical licenses, on page . . . " Before said license shall be issued, it shall be recorded in a book to be kept in the office of said Regents, and the number of the book and the page therein containing said recorded copy shall be noted in the body of the license. Said records shall be open to public inspection, under proper restrictions as to their safe keeping, and in all legal proceedings shall have the same weight as evidence that is given to the record of the conveyance of land.

SEC. 8. From and after the first day of September, eighteen hundred and ninety-one, any person not theretofore legally authorized to practice medicine and surgery in this State, and desiring to enter upon such practice, may deliver to the Regents of the University, upon the payment of twenty-five dollars into the treasury of the University of the State of New York, a written application for license, together with satisfactory proof that the applicant is more than twenty-one years of age, is of good moral character, has obtained a common school education, and has either received a diploma conferring the degree of doctor of medicine from some legally incorporated medical college in the United States, or a diploma or license conferring the full right to practice all the branches of medicine and surgery in some foreign country, and has also studied medicine three years, including three courses of lectures in different years, in some legally incorporated medical college or colleges prior to the granting of said diploma or foreign license; provided that two courses of medical lectures, both of which shall be either begun or completed within the same calendar year, shall not satisfy the above requirement. Such proof shall be made, if required, upon affidavit. Upon the making of said payment and proof, the Board of Regents, if satisfied with the same, shall direct the secretary thereof to issue to said applicant an order for examination by any one of said boards of medical examiners which said applicant may elect. In case of failure at any such examinations, the candidate, after the expiration of six months, and within one year, shall have the privilege of a second examination by the same board to which application was first made, without the payment of an additional fee. And it is further provided that applicants examined and licensed by State examining boards of other States, on payment of ten dollars to the University of this State, and filing in the office of said Regents a copy of said license, certified by the affidavit of the president and secretary of such board, showing also that standard of acquirements adopted by said State Examining Board is substantially the same as is provided by sections five and six of this act, shall, without further examination, receive from said Regents a license conferring on the holder thereof all the rights and privileges provided for by sections eight and nine of this act.

SEC. 9. On and after the first day of September, eighteen hundred and ninety-one, no person not theretofore a legally authorized practitioner of medicine and surgery, under the laws of this State then in force, shall practice medicine or surgery in this State, unless that person shall have received from the Regents of the University, after examination and approval, as herein provided, a license to practice as a physician and surgeon, and unless said license shall have been registered as required under the provisions of chapter six hundred and forty-seven of the laws of eighteen hundred and eighty-seven, or, unless such person shall hold a license from the State examining and licensing board of another State, and shall have been licensed by the Board of Regents, as provided by this act.

SEC. 10. Nothing in this act shall be construed to interfere with or punish commissioned medical officers serving in the army or navy of the United States, or in the United States Marine Hospital Service while so commissioned, or any one while actually serving as a member of the resident medical staff of any legally incorporated hospital, or any legally qualified and registered dentist exclusively engaged in practicing the art of dentistry, or interfere with manufacturers of

artificial eyes, limbs, or orthopedical instruments or trusses of any kind from fitting such instruments on persons in need thereof; or any lawfully qualified physicians or surgeons residing in other States or countries, meeting regular physicians and surgeons of this State in consultation, or any physician and surgeon residing on the border of a neighboring State and duly authorized under the laws thereof to practice medicine or surgery therein, whose practice extends into the limits of this State; providing that such practitioner shall not open an office or appoint a place to meet patients or receive calls within the limits of the State of New York; or physicians duly registered in one county of this State called to attend isolated cases in another county but not residing or habitually practicing therein.

SEC. 11. This act shall take effect immediately.

MISCELLANY.

THE ANNUAL MEETING OF THE AMERICAN CLIMATOLOGICAL ASSOCIATION will be held in Denver, September 2 to 4, and a successful gathering is expected. The Western Passenger Traffic Association has granted a one fare for round trip rate; tickets to be bought August 31 and September 1, and good for return till September 25—which is open to others as well as members. One-third of the time is expected to be given exclusively to the study of Colorado subjects, and after the three days' sessions the visiting physicians are to be given an opportunity personally to investigate the mountain resorts by a series of complimentary excursions.

The programme includes papers (titles as yet unannounced) by the following: Dr. H. A. Johnson, Chicago; Dr. R. G. Curtin, Philadelphia; Dr. T. M. Cammann, New York City; Dr. Karl von Ruck, Asheville, N. C.; Dr. S. A. Fiske, Denver; Dr. Robt. P. Meyers (of Texas) Manitou Springs, Col.; Dr. S. E. Solly, Colorado Springs, Col.; Dr. W. W. Johnston, Washington, D. C.; Dr. Walter Lindsay, Los Angeles, Cal.; and a combined report from Drs. Standart, Hamilton and Foster, of Salt Lake City, Utah.

Also the following completed list:

By Dr. Charles Denison, of Denver, Col., "Abnormal Intra-Thoracic Air-Pressures and their Treatment."

Dr. B. L. Westbrook, of Brooklyn, "The Physiology and Pathology of Breathing."

Dr. F. I. Knight, of Boston, "Can Patients in whom Tubercular Disease of the Lungs has been arrested in a High Altitude, return with safety to a Low one?"

Dr. A. Tucker Wise, of Malojia, Switzerland, "The Climate of Ajaccio, Corsica."

Dr. A. T. Eckridge, of Denver, "The Influence of High Altitudes upon the Nervous System."

Dr. T. M. Coan, of New York City, "The Climate of the Hawaian Islands."

Dr. J. H. Tindale, of New York City, "Fifteen Aphorisms embodying the Present Status of Pulmonary Consumption."

Dr. Henry M. Baker, Lansing, Mich., "Relations of certain Meteorological Conditions to Diseases of the Lungs and Air Passages in Colorado."

Dr. J. H. Kellogg, of Battle Creek, Mich., "The Essentials for a successful 'Closed' Sanitarium in Colorado."

Dr. R. Harvey Reed, of Mansfield, O., "The Climate of our Homes, Public Buildings and Railway Coaches a leading Factor in the Production of the annual crop of Pulmonary Diseases."

Dr. Leonard Weber, of New York City, "A Comparative Study of the climate of those regions of Europe and America which are now *en vogue* in the treatment of Pulmonary and Nervous Diseases."

Dr. John H. Musser, of Philadelphia, "Bilateral Pleurisy."

Dr. W. M. Yandell, of El Paso, Tex., "The Preferable Attributes of Climate for Consumption as applied to winters in Southern New Mexico, Southern Arizona and Western Texas."

Dr. James H. Wroth, of Albuquerque, N. M., "The Climate of New Mexico as viewed by the Medical Fraternity there."

Dr. Francis A. Atkins, of Las Vegas, N. M., "Climate by Exclusion."

Dr. W. R. Tipton, of Las Vegas, N. M., "The Preferable Climate for Consumptives as applied to Northern New Mexico."

Dr. W. A. Jayne, of Georgetown, Col., "The so-called High Altitude Pneumonia."

Dr. W. M. Strickler, of Colorado Springs, Col., "Operative Means for the purpose of contracting the Thorax in certain Chest Diseases."

Dr. A. Stedman, of Denver, "The Influence of High Altitude Climate upon Youth as determined by an acquaintance with the Public School System of Denver."

Dr. Thos. Darlington, of Bisbee, Ariz., "Information about desirable localities for winter Health Stations in Southern Arizona."

Dr. H. O. Dodge, of Boulder, Col., "Acclimation of Consumptives to the Colorado Climate."

Dr. B. P. Anderson, of Colorado Springs, Col., "Mode of Life of the Consumptive Patient in High Altitudes."

Dr. Jacob Reed, of Colorado Springs, "The Relation of Climate to Pulmonary Hæmorrhages in Colorado."

Dr. H. A. Lemen, of Denver, "Influence of High Altitude Climate upon Women."

LETTERS RECEIVED.

Dr. E. B. Herrington, Elida, O.; Dr, J. K. Leaning, Cooperstown, N. Y.; Dr. H. L. Getz, Marshalltown, Ia.; Dr. W. A. Dietrich, Lookout Mountain, Tenn.; Dr. W. R. Greenlee, Harriston, Miss.; Dr. R. B. James, Dr. S. T. Armstrong, New York; Dr. O. P. Holt, Cincinnati, O.; Dr. A. G. Young, Augusta, Me.; Dr. F. L. Moyne, Sweet Springs, W. Va.; Dr. H. Cushman, Stromsburg, Neb.; John F. Jones & Co., Dr. G. Masson, Paris, France; Dr. B. T. Shimwell, Dr. R. J. Dunglison, Philadelphia; Dr. G. W. Wendell, Boston, Mass.; L. Graham & Son, New Orleans, La.; University of Denver, Denver, Col.; Dr. C. R. Schaefer, Indianapolis, Ind.; Dr. J. H. Wilson, Plymouth, Ind.; Dr. T. D. Crothers, Hartford, Conn.; Dr. J. C. Hoag, Chicago; Dr. W. Woodruff, London, Canada; Dr. G. T. Vaughn, Evansville, Ind.; T. W. Hannaford, London, Eng.; Dr. H. J. Houghton, Norristown, Pa.; Dr. U. O. B. Wingate, Milwaukee, Wis.; Dr. Chas. Denison, Lake Geneva, Wis.; Dr. C. C. Browning, Blackwell's Island, N. Y.; Lord & Thomas, Chicago; Dr. D. D. Bramble, Cincinnati, O.; Palmer House Co., Chicago; Dr. C. W. Richardson, Washington; Dr. B. A. Watson, Jersey City, N. J.; Dr. L. G. North, Tecumseh, Mich.

Official List of Changes in the Medical Corps of the U. S. Navy for the Week Ending July 26, 1890.

Asst. Surgeon L. H. Stone, ordered to the U. S. receiving ship "New Hampshire."

Asst. Surgeon J. F. Uric, detached from the U. S. receiving ship "New Hampshire" and ordered to U. S. receiving ship "Wabash."

P. A. Surgeon Oliver D. Morton, granted leave of absence for month of August.

Surgeon H. J. Babin, granted one month's leave of absence from July 23.